

CURRENT

Volume No. 16
Issue No. 3
May/June 1996
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NOTES

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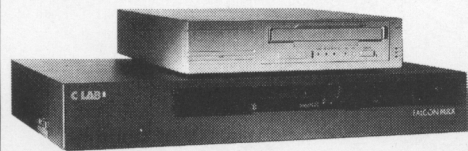
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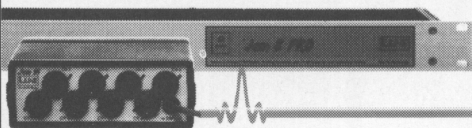
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SOUNDPOOL



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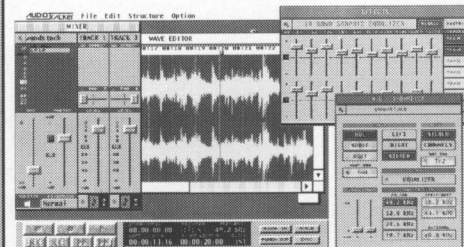
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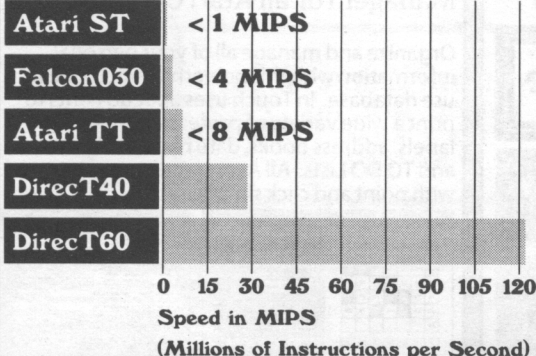
DirecT40 and DirecT60 are designed to use PC / IBM compatible peripherals such as ISA or PCI Graphics Cards, EIDE and SCSI hard drives, keyboards and standard PS/2 memory SIMMS! Memory is expandable to 1 Gigabyte via simple plug in standard SIMM memory modules! Built in Canada by the company that brought you the DirecT30 compatible, you can be assured of receiving top quality product, service and support!

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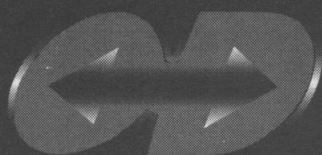
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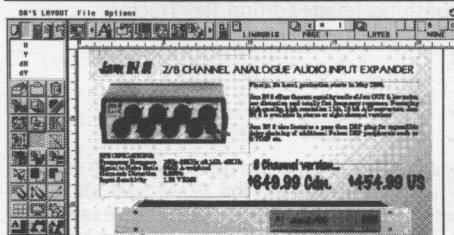
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Look II, for Epson Flatbed Scanner

Epson scanners are well known for their quality and durability and Look II allows you to access all the features of these award winning scanners.

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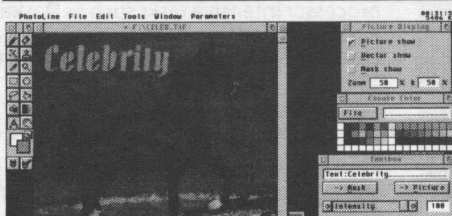
Scanners

Computer Direct is your best source for image acquiring hardware and software.

We have the largest selection of Atari Compatible flatbed scanners and drivers available in North America! Choose from Epson, HP, Mustek and Relysis. Scanners with Atari software drivers start as low as...

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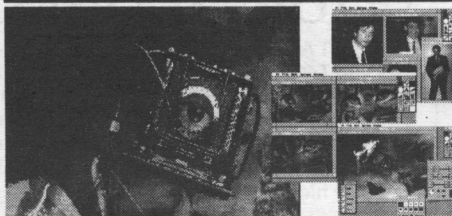
PhotoLine



PhotoLine is a new high end Image Editing and processing system with powerful tools, filters and colour correction capabilities that rival packages costing three times as much on other platforms!

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Positive Image



Positively Perfect! Positive Image!

A high end Photographic Image Processing and Retouching System that is enhanced to take advantage of the DSP in the Falcon, yet will run on any Atari computer!

Positive Image is fully GEM compliant and allows the editing of 24 bit colour images on an ordinary ST in any resolution! Positive Image sports a modern 3D interface, extensive file format support, filters and user definable 256 level masks, multitasking, support for SpeedoGDOS or NVDI scalable vector fonts. A high spec system is not required, but the program will take advantage of the increased processing power if it is there!

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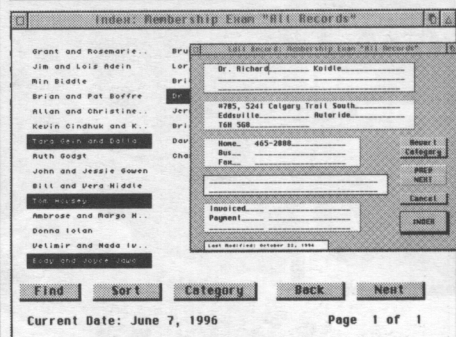
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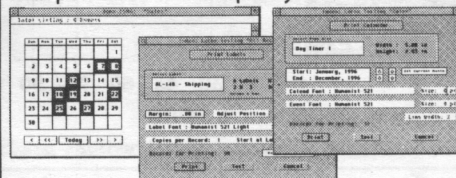
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An amazing Personal Information Manager for all Atari Computers!

Organize and manage all of your personal information with this powerful and simple to use database. In Touch uses Speedo Fonts to print a wide variety of professional looking labels, address books, date books, calendars and TO DO Lists. All Avery labels are supported with point and click simplicity!



Organize your time with the included event manager, you can even print out refill sheets for any popular "DayRunner" or "DayTimer" pocket diary! A date reminder keeps you informed of upcoming meetings or events.

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MagiC Mac is MagiC written for Macintosh computers. Highly compatible and fast, MagiC Mac allows you to run most of your favourite Atari applications side by side with Macintosh programs.

Cut and paste text between applications running on both OS' using the Mac clipboard and the Atari clipboard. Share files simply by dragging and dropping. Connect an Atari formatted SCSI hard drive to the Mac for access to the files on it!

MagiC Mac includes Ease, the highly regarded alternate desktop. Managing your desktop will never be easier!

\$ 319⁹⁹ Cdn. \$ 219⁹⁹ US

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An Awesome new utility for GFA Basic Programmers!

The most important development tool ever released for GFA Basic. Drop a RSC File in, out pops the most amazing GFA code you ever saw!

Creates the new GEM2 code for GFA in a fraction of the time!

\$ 99⁹⁹ Cdn. \$ 69⁹⁹ US

Ease 4

Ease does as Ease says! A feature filled replacement desktop for use with or without MagiC.

Ease is an alternative desktop designed for multitasking operating systems such as MagiC or Geneva. It can also be used with TOS. Any file or folder or program can be dragged onto the desktop and opened from there. Programs can be started via hotkeys. TOS programs can run in a window with the ability to save or print the output! GDOS fonts can be used to display text in windows. The display mode, text or icons can be set for each window!

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OutSide 3.4

Break the memory limit! Outside, the Virtual Memory Manager for all 68030 based Atari computers.

Adding RAM to your Falcon, TT or PAK 68/3 equipped Atari can be expensive. With Outside a partition on your hard drive is used to "Swap" data with little or no noticeable loss of performance. Outside is the fastest Virtual Memory Manager available. It is highly configurable, rock solid and very compatible.

No hardware modifications are needed! Outside is a complete software solution!

Outside ships with HD Driver Lite, an extremely powerful and fast AHD compatible hard disk driver.

Upgrades from Previous versions are available.

\$ 79⁹⁹ Cdn. \$ 59⁹⁹ US

Kobold

The amazingly fast file utility!

Copy, move and delete files in record time! Automate repetitive tasks using recordable macros! Back up and optimize hard disks, format floppies and more. Kobold runs in the background under MagiC and HD Driver!

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HD Driver 5

Give your drive a swift boot!

HD Driver is the fastest hard drive utilities available for Atari computers! Extensive support for the widest range of hard drives, SCSI bus arbitration, parity support for data integrity on a TT or Falcon, support for XHDI partitioning formats, special support for ZIP drives with read write protection as well as password protection. Background DMA transfer support under MagiC 4. New to version 5 is the ability to format hard drives! Share a drive with other computers, even Macs or PC's!

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NVDI 4

NVDI ... even the name sounds fast!

Tired of waiting for screen redraws? Then NVDI is for you! NVDI replaces Atari's portion of TOS referred to as the VDI with super fast, optimized code. Windows will pop open faster, scrolling of windows will be smoother and faster and now NVDI features even faster printing routines!

Yet NVDI offers so much more than screen acceleration. The new font engine is fully compatible with SpeedoGDOS applications and contains many new printer drivers incl. the popular Epson Stylus colour page printer.

A special version is available for ET4000 graphic cards as well as for MagiC Mac.

Computer Direct offers upgrades from v3.x as well as v2.x, call fax or e-mail us for details!

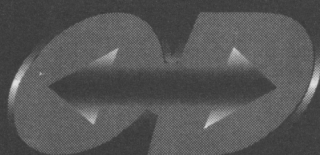
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E-Copy

The New Disk Copy Utility

An incredible new disk copy utility that runs in the background under MagiC and HD Driver. Format floppies with complete control over the sector and cluster specs, make personal backups of disks using the "Disk Image" format.

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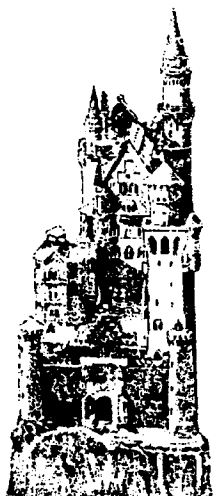
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Contributors

President Bill Clinton and Prime Minister
Jean Chretien have one thing in common:
they can both meet someone like Pamela
Anderson Lee and stare unwaveringly,
directly into her eyes. Just once I'd like to
hear one of these guys holler: "EEEyah,
that is one bodacious set of . . .!" It might
just humanize the entire political process,
or at least help us expunge some of the odd
thoughts we have about these dudes?

Technical Support

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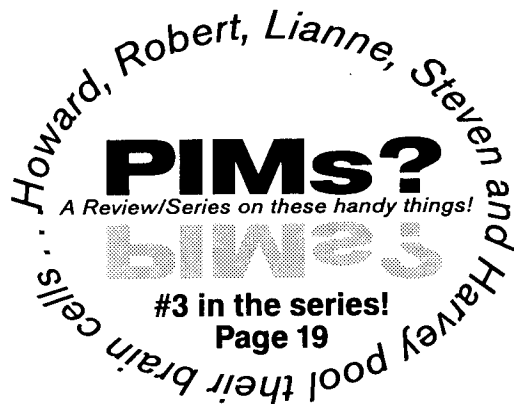
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or by regular mail:

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Current Notes is produced in Calamus
SL on two main workstations: ① Atari
Falcon030 running at 32 Mhz,
equipped with the BlowUp FX
expansion card, 20 MB RAM (16 MB
TT-RAM, 4 MB ST-RAM) and, ② a
Mega 8 ST (Turbo030/50 Mhz) driving a
24" Moniterm. CN uses Licenced &
Shareware/Freeware fonts. All Layouts
& Graphics are done in-house. Masters
are produced at 600-1200 DPI by both
HP Lasers and Imagesetters.

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Scott Chilcote continues his important series on MiNT/MultiTOS. page 42

Dan Dreibelbis spills the beans on Wizztronics, Compo U.K., System Solutions, Black Scorpion & Nemesis alt.info.everything page 15

Robert Boardman knows that small business needs the 'Net's resources . . . futures page 6

All things to all people? A piece of software? No way - and Howard tells us why! big city byte page 13

16/32/64/compute/game page 35
Eric March has an interesting look at ISDN lines, speed, costs and what's best for you!

MIDI page 45
Lorant Oswald understands the need for sound basic knowledge!

David Barkin reveals the ultimate secrets of color correction using DAS Repro and Calamus SL running out of RAM page 9



ToadLine is Back! Great Stuff from David Troy! page 32

Howard Carson explores the fascinating world of Text Editors, conducts a massive test, draws all sorts of outrageous conclusions, and forces the rest of the gang to come up with some interesting stuff!

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Lianne Reitter does

Invision Elite II (color) page 40

Dan Dreibelbis does

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Sorry folks . . . there was so much material this month, we had to shrink 'letters' pg 54, and 'classifieds' pg 56!

opinion, sense, nonsense, political reality

F U T U R E S

robert boardman

Uncle Robert teaches us how to "sell, Sell, SELL!!"

So far in our journey into the wild world of the small office/home office (notice I didn't use the SOHO acronym – that term means something entirely different to me), we have talked about hardware, software and a little about office setups (ergonomics). There was also a side trip into the world of copyright and copyright regulations. That was some introductory advice for those involved in printed materials and World Wide Web Page design. In the next few columns I want to concentrate on how to MAKE MONEY. Got your attention now? In order to make money, every business needs to make sales; every business needs to be concerned about marketing.

I have to start by assuming you have something to sell which other people will buy. I am not going to tell you what to sell, nor will I make predictions about what businesses will be profitable in the short or the long term. What I am going to outline is a process for setting up and executing a marketing plan for a pre-existing product. I'm going to use my own company as an example. You may have been in business for a long time; you may already have developed techniques which are appropriate to the small office/home office (if so, tell me about them; I can learn from you, too!). If you're wondering how to get started however, the following guidelines will help. We may not be in the same business, but there are certain fundamentals which apply to most situations.

Hands On Communication is a home-based business. The company was originally registered with the objective of disseminating educational materials. At first that aim was accomplished through the writing of training manuals and leading adult classroom training sessions. Now the company is concentrating more on desktop publishing and graphic design. As a publisher, the company holds a license from Canada Post to distribute publications at reduced mailing rates. So we "sell" three things: 1) design services for printed materials, 2) editing and publishing services, and 3) distribution services for printed and computer generated materials to the educational, not-for-profit and consumer sectors. The first step you need to take when creating a marketing plan is to decide what you want to sell: product(s), services, skills, leadership, motivation, small manufacturing, advice, facilities, techniques, etc.

Hands On Communication can take a collection of hand

written and typed manuscripts and turn them into an attractive, illustrated periodical which can then be sent across the country or around the world, on paper and/or electronically. However, in order to stay in business and NOT be not-for-profit ourselves, we need to find people and organizations who will buy these services.

How do you find potential customers?

If you are a computer user and somebody asks, "How do we find ___?" the common answer right now is "On the Net," by which most people mean on the World Wide Web. I have no wish to discourage you from using the Net. I have found a lot of useful information there, and e-mail makes contact management with a variety of people fast and easy. But it's not the only place to look or even the first place (even if you are marketing web page design services!). If you do a quick search with a world wide web on-line search tool (AltaVista, Lycos, Web Crawler, Yahoo, etc.), on any business sector, you will often find two groups of companies and organizations: those who have lots of money, advertise freely in other media and see the Internet as just "another place to be," and those who are much smaller, sell a very select group of products to a niche market and use the Net to find customers in a more cost effective manner than traditional advertising media. Before we look at using the Net, let's examine the more conventional methods for finding customers?

Define your market. Who are your customers?

Hands On Communication wants to make sales in two different markets: educational organizations & not-for-profit organizations. We are a small company right now, not an international publisher, so we don't sell textbooks to school boards, colleges and universities. However, the educational market, particularly the Adult Education market, has teachers who write course manuals, lab manuals, student guides and software packages. Hands On Communication can provide important services to them. Teaching contracts are often constructed so that course materials which are written on school time become the property of the school. Night school teachers in particular, are not paid for course development and writing, but only for classroom time. There are

also many private training schools whose training packages could be redesigned to be more useful and more appealing to trainees.

How to find potential customers?

Where can we find them? Getting a list of night school teachers from their employers is difficult; we are offering a service that competes with any existing school board or college printing or publishing programme. But getting a list of private training schools, which may not be large enough to have their own book design and publishing department, is very straightforward. Open up the Yellow Pages and look. My phone book uses the following headings: 'Management training & development', 'Sales training and development' and 'Schools - technical & trade'. The following categories may also be helpful in the hunt for potential customers: 'Training schools', 'Vocational training', 'Employment training'. And if I check the index under 'Schools', I see the following sub-categories: 'Academic - colleges & universities', 'Academic - elementary & secondary', 'Academic - nursery & kindergarten', 'Academic - special purpose', 'Art', 'Aviation', 'Cooking', and another fifteen specialty, educational facilities. While we might rule out the publicly funded schools and colleges and those which have their own printing houses, the large number of other schools and training facilities are possible targets for our marketing campaign.

You can do the same kind of market research for whatever it is you sell. Your phone book can be one of the easiest and cheapest sources of markets for your business. Perhaps you live in a rural area, and the phone book is thinner than the weekly newspaper. Have you taken a trip to your local library to see if they have business directories and phone books? If they don't exist close by, take a trip to the closest large centre that has a library. Chances are good there will be a collection of phone books available in the reference section. Use them. Create a sheet of lists and categories with all the names, phone numbers and addresses you can manage. Finding customers takes time, but it does not have to be expensive.

And what about the not-for-profit sector? How can we find potential customers there? The phone book can be helpful once again. Check the listings under 'Associations', 'Clubs', 'Organizations', 'Foundations' and 'Social service organizations'. Of course, these trips into the

phone book will only find potential customers who have a telephone number listed in the name of the organization. Many not-for-profit groups, who might be good customers or who might lead you to good customers, don't have their own phone. So make a trip to the local library, town hall, tourist bureau and welcome wagon, or any other spots where brochures and information from these smaller groups might be available. You can often determine whether or not a group needs your services simply by reading their advertising material.

If you are a participant in one or more volunteer organizations, you already have lots of marketing possibilities open to you. Other volunteers in the group already know your face, your name and possibly some of your skills. Some organizations have a written or unspoken rule about doing business at meetings or functions. Whether they do or not, you will still be connected with people as a participant in the organization(s). When it is appropriate to "talk business," take the opportunity to call on all these connections. If you've been an active, involved participant in the group, that volunteer work will help sell your services.

Keeping track - Contact Management

You may have grabbed hundreds of potential customers just from the phone book. All of this must be recorded and kept up to date. As you get to know your customers you will need to keep track of who works where and how to contact certain people when you need them. You might want to keep track of any special days in their business year (year end, anniversary of founding, regular promotions, etc.). One of the many Personal Information Managers (PIMs; check out the DaCapo review in this issue, and the whole PIMs series) will probably be appropriate, or you could design your own with AtariWorks, Twist, Alpha 5, MS-Access, DB Expert, Lotus Approach, or some other database software. Inputting data is tedious work initially, but it will be rewarded later on. If the PIM or Contact Manager can generate mailing labels, source data for form letters, multiple mailings, and business forms (such as invoices and statements), it will also save an enormous amount of time and money. Entering data once is painful. Retyping it two or three times for two or three different purposes is unnecessary, a waste of time and a sure cause of aggravation.

Whatever software is used, make sure it can handle a variety of tasks. If your database cannot generate form letters and mailing labels, make sure it can export data in a form usable by a word processor or desktop publishing programme which can then be used to print what you need. Any database software should be able to print (either to a printer or a file) whatever records you want, using at least two or three selection criteria. It should also be able to sort your data using several criteria. Most database programmes will send output to a printer, but some will print only the whole file or nothing. Some allow selected records to be printed, but they can only be selected using one criterion. Frequently, the 'office suites' (AtariWorks, MS-Office, MS-Works, Claris Works, etc.), have the best internal co-ordination, but sometimes a series of independent programmes are more appropriate (e.g.: Contact & Access, Harlekin & Twist, DaCapo & AtariWorks, and so on), and provide greater flexibility in the long term, particularly when individual components can be upgraded.

Our Story So Far - Developing a Marketing Plan

First, define who the customers might be. That implies you have already decided what you are going to sell, and have a rough idea who might be interested in buying. This first step narrows down potential customers from 'anyone who needs things printed on paper' to 'educators and educational institutions'.

Second, find your customers. After ruling out one source of information (school boards and colleges) we selected another group of businesses who are in a similar field. Finding groups of people doing the same sets of tasks is always easier than finding individuals, until such time as you develop a large pool of contacts.

Third, keep useful, accurate and up-to-date records of all potential customers. Use your computer; it does not forget or misplace records. Make sure you perform regular backups! Use software which can do the specific tasks you need done now, and which will be capable of working with much larger groups of customers in the future.

Next time we will look at the next step in marketing: promotion. You now have some of the tools which will help you find possible buyers. Next time we will talk about how to approach those buyers.

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COLOR CORRECTION IN TWO (EASY) LESSONS

Last issue I dealt with color correction and highlighted Calamus SL. Before turning to SL, I turned to my other great software love, Das Repro CD, glanced at its color correction capabilities, and made a decision. Das Repro looked like a piece of cake, coming equipped with every form of color correction, neatly packaged into clear distinct sections.

Unlike SL, there is ample documentation. I decided to concentrate on SL, learn the 'business', and move on later to the 'easy stuff'. Perhaps this was wise. I say perhaps, because of a rather stunning discovery I made AFTER turning to Das Repro. There is indeed plenty of documentation.

The problem with the documentation for Das Repro is that it's wrong! Carefully following the manual will lead you to the looney bin. Does this mean that all the things that Das Repro claims to do are lies? Are owners of Das Repro getting beat? No! Thanks to a healthy scoop of perseverance, all Das Repro's claims turn out to be true.

You can calibrate your monitor to see exactly what will print. You can correct and separate color images. You can do all these things but you will also need this article as a guide! We'll show you how to access these features and make full use of the programs capabilities. If you acquire Das Repro, rip out the color correction chapter and substitute this article. Also send a big thank you to me so I can justify four weeks of work and three or four trips to Bellevue, not to mention paying for my new prescription for Prozac and the court costs of bailing out the dog from jail after he ran amuck over the lack of attention he was getting. In my last article, based on Calamus SL, I reported that the UCR control line was actually a GCR control line. This was truer than even I knew. Take a look at the examples of the various kinds of color correction. The amount of black which is actually part of a color image is astounding. Space requirements force me to leave out the

**You want more color?
Barkin has more color!
You want more curves?
Barkin has more curves!
Printers? RGB? CYMK?
It's A Breeze!**

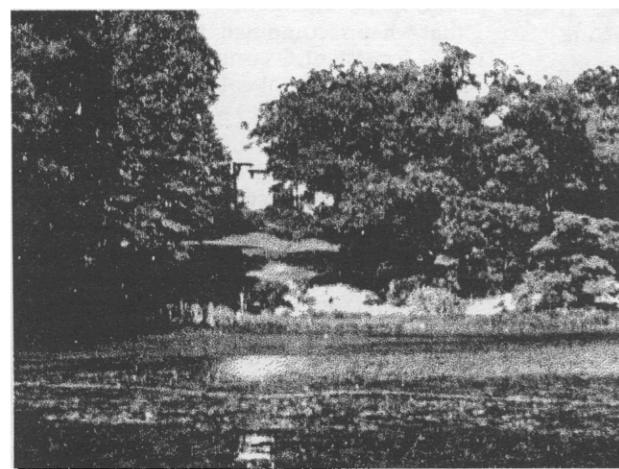
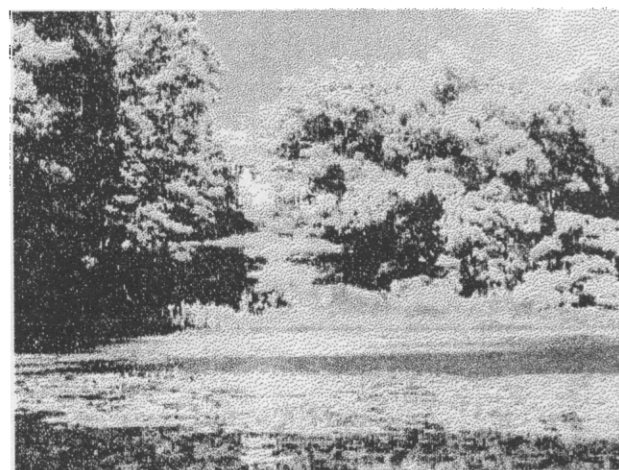
original image but it looks much like the black plate from Achromatic Separation! Let me review what these separation terms mean. There's no space to go over what was covered last issue, so I suggest that if you don't have it, or threw it away, you go out and steal someone else's copy.

Das Repro supports almost all computer separation formats. Achromatic Separation is where CMY grey is actually created by eliminating one of the three primary print colors from this scheme. In other words grey is formed by eliminating cyan (or magenta or yellow) and therefore magenta + yellow + black make up the grey undercolor. To this mixture is added a separate black plate. There are two advantages to this system. First there's a lot less ink being used since only two colors are being used at any one time to create grey. Second, if this job is going to actually be printed it reduces the number of registration problems (alignment of the various plates that actually compose an image). I've grown attached to this method of separation. Not only am I happy with the output but it's very easy to further improve the image by working on the newly created black plate and altering just this plate, so that when recombined, the results are very consistent. Its one weakness is the subtle transition of colors for such things as skin tone, etc.

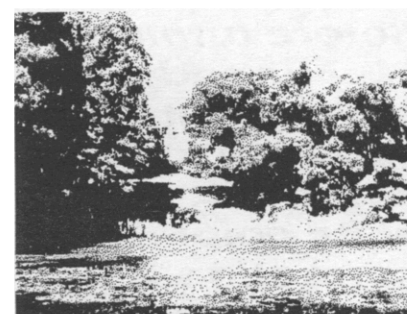
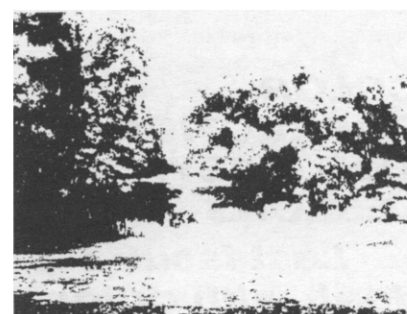
The next method of separation is GCR standing for Grey Component Removal. GCR is actually a less severe example of Achromatic Separation and the terms are often used interchangeably. With this method of separation almost all of the CMY grey is stripped away and a black plate added. The amount of undercolor removed is user definable. How much to remove is up to you! Each image has to be treated individually. As you can see, color separation &



Figure 1. To the left are examples of what an image actually looks like when separated into the CMY and black plates. This separation was done via the Achromatic option of the color separation dialogue of Das Repro. The reason you can't see much detail in the CMY plate is very simple, it's not there! It is absolutely amazing how much of a color image is actually composed of black. Keep in mind that in process color printing there is no CMY plate, rather there are four separate plates C,Y,M,K.



On the top left is the original image, below that the CYM combination plate and the third larger image is the black plate. All of these images have been nicely StarScreened in Calamus SL to, hopefully add clarity. Finally I've included below this text the CYM and black plate using the UCR dialogue of Das Repro. On the very bottom of the page are the CYM and black plates from the GCR dialogue of Calamus SL.



collection is more of an art than a science. The GCR dialogue in Das Repro allows you to set parameters to the point where GCR separation is so weak that it starts to intrude on UCR. GCR is very common in Process printing. While using more ink than Achromatic Reproduction, there is generally more consistent color throughout the image. In UCR (Under Color Removal), only a relatively small amount of undercolor is removed. There are two basic options in the UCR dialogue. In the first, called Skeleton Black, you select the amount of black that will be generated for such areas of your image as hair or in my case, fur. Without this addition of black, areas of the image will appear to be a very dense brown. While in theory C+M+Y should make up black, theory gives way to reality and we add a true black. In the second option we select how much of the CMY black will be replaced by true black. After you've modified these parameters, both by using numbers to create the black plate, and then manipulate the resulting control line to further fine tune it. UCR is absolutely unsuited for newspapers and other forms of cheap paper. There's a lot of ink being smeared on your page. It's basically used where absolute color accuracy is required. Plates on which paintings are being reproduced are it's most common usage. On my home printer I found that after making my separation I sometimes have to lower the color levels to get good results.

Finally there is UCA (Under Color Addition). This method is also called Black Chromatic Separation: a black plate is added to the RGB image in addition to the plate generated by the separation process itself. This black plate is composed of CMY not true black. There is a separate black plate in addition to the newly generated CMY plate. At the moment this method is used primarily for creating dark backgrounds which have added depth thanks to all the colors. It's difficult to use this method on a normal image because we are talking about glooping on ink. With this method, registration problems for process color printing are insurmountable. However, it is also used for proofing devices such as Thermal Wax Printers. On my HP 850C DeskJet the results have sometimes been better than with any other method of separation. The warning here is that color and black levels have to be dropped dramatically to achieve good results. I've given examples of some of these methods in Figure 1. They all have their uses. Das Repro not only covers these methods but

supports just about every other separation method supported by computers. In addition it allows full control of their creation. Figure 5. shows the Color Separation dialogue. Finally, you can edit these plates individually or collectively even after you're done with the separation. No other program has such fine control.

Calibrating Your Monitor With Das Repro

Chapter 14 of the Das Repro manual is chock full of information about calibrating your monitor and using the Repro Grafus Accessory for color correction. Basically it has one problem: it doesn't work. Indeed it's no longer included with the Das Repro package. The replacement is much less powerful, but it does in fact run. So throw out chapter 14. Here's a step by step procedure for doing ALL of the above. This method will work for the TT Accessory and the Falcon version though they differ in minor respects.

- 1. Print out three squares of cyan, magenta and yellow. If you employ a scanner to bring in the three colors (from a printed color chart for instance), use the standard (or you favorite) scanner settings.
- 2. Load the resulting file into Das Repro. Displayed on your monitor, the three colors will be different from what you printed out. This is the difference for which you must compensate in order to

achieve vibrancy.

- 3. Using the graduation controls within Das Repro, change the colors on screen to accurately duplicate the three printed colors.
- 4. Save the resulting file and load it into your page layout program and print it out. If you're using Calamus SL you must save the image as a CYMK TIF. This is because Calamus automatically attempts to correct RGB TIFs and this will confuse the issue. Follow the manual's instructions for doing separations. Once in SL delete the Black graduation; we want only pure colors to print.
- 5. On my printer the resulting printout is way off. Blue/purple for cyan, reddish brown for magenta, and a reasonably accurate yellow. This distortion of colors reveals the importance of color correction. It reveals why I (you?) are having such a hard time getting things right.
- 6. Go back to Das Repro and load your original unchanged file. Now using graduation controls change the colors to match what printed! DO NOT ACTUALLY CHANGE THE GRADUATION!

Take a look at figure 2. Next to the test button is a small nondescript black box. This little box has a secret. The authors of the manual seem to be unaware of this little mystery. Here's where I puff out my size 32 chest and making loud grunting noises, disturbing the neighbors. If you click on this box, the selected graduation is becomes the

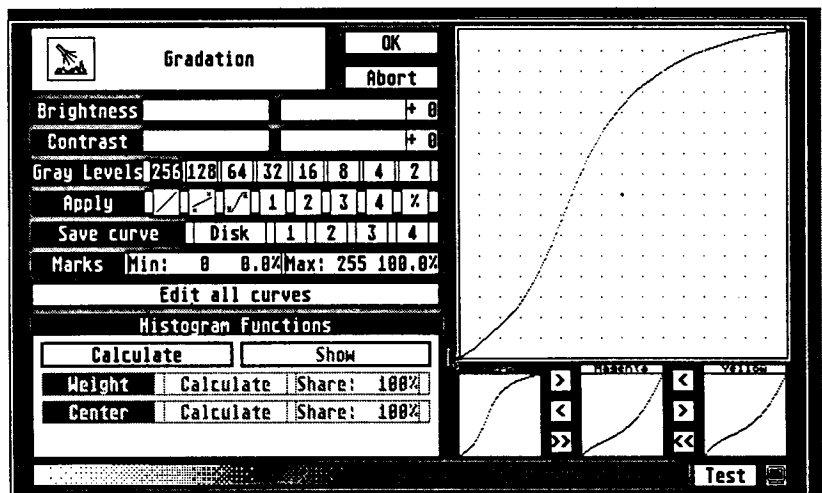


Figure 2. The graduation dialogue in Das Repro. In this dialogue you can alter the color levels of your image. Note the little black box next to the "test" icon. This little box is the key to calibrating your printer.

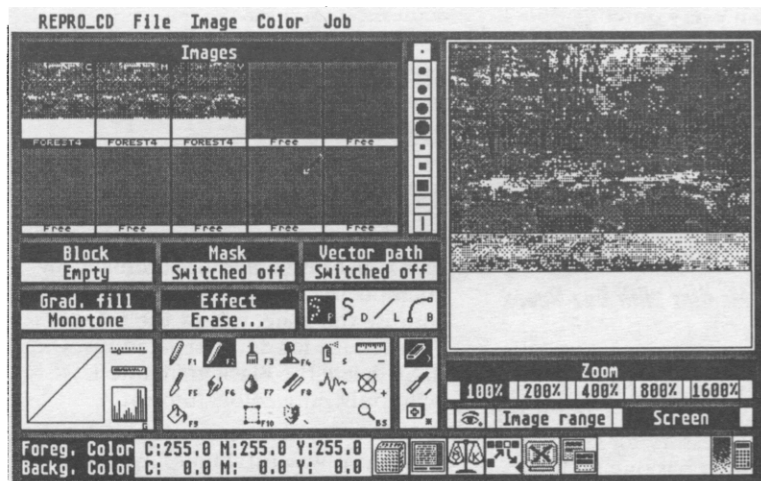


Figure 3. The das Repro tool screen. The fourth icon from the right is the Color Separation dialogue. With the X on, you will see exactly what will print.

default view on your monitor! Go on, click on this box and then ABORT the graduation dialogue. We don't want to change the actual graduation of the image, just match the monitor with what will print. Thus, even though the graduation has not changed the appearance has! If you now go to the CDVDI256 Accessory and save the parameters, this true view will become your default. You have now successfully calibrated your monitor to match your printer. A little note is in order. If you click on this little black box but don't save the parameters you will have calibrated your monitor for the working session with Das Repro. In fact only rebooting the computer will change this calibration. Using this method you can change your calibration on the fly. You can therefore save a library of graduation settings to match your printer, your service bureau's printer, your box of crayons, whatever.

Color Correction

If you look at Figure 3. you will see the Das Repro controls when an RGB image is loaded. Notice the fourth icon from the right. This is the color correction dialogue. With the X on the icon (assuming your monitor is calibrated), you'll see exactly what will print. Clicking the right mouse button turns off the X and you will be looking at what will print if you use the distort option within the dialogue. With the X active

the image probably looks awful. It looks pretty bad even if the colors are right, and it's because while you're looking at a 16 million color image, your printer can actually output only a relatively small number of colors (no matter what the advertising says). What you want to see on screen is an image with pure colors that match the original image. Follow the directions below.

→ 1. Load in your original 3 color image. Use the graduation controls of Das Repro to change the colors to match true CYM. Then change the colors. Using the block tool and calculator as described in the manual, measure each square for mean values. Also measure the white area between the squares. Write this information down and then type it into the color correction dialogue. Once again

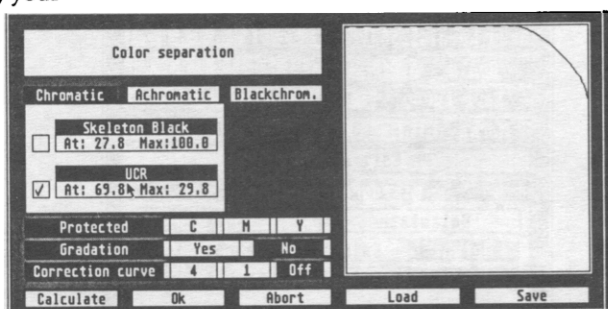


Figure 5. The Color Separation dialogue. In this case I've selected separation. Each choice allows for setting different parameters giving total control over the resulting separation.

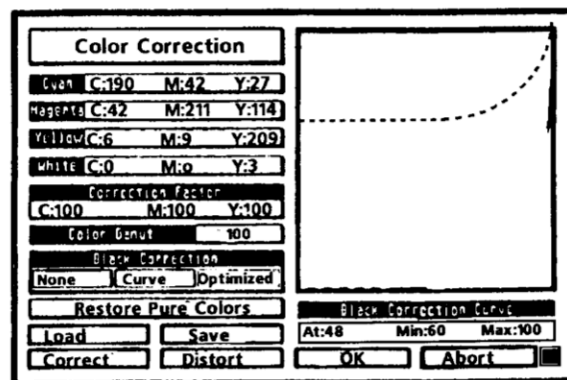


Figure 4. The Color Correction Dialogue. Here is where you determine how far colors should be shifted to get an accurate reproduction. It also determines the power of the Black plate.

there is a little black box in the corner. The manual does describe this box. Clicking on it sets the information you've typed in. If you don't click the information will be lost. You can save these correction numbers and depending on the results of using the dialogue, alter them and create a library.

→ 2. Take a look at Figure 4. The manual describes setting the black curve, but in a confusing manner. The Optimize option creates an automatic black plate. If you use the Curve option you must draw the plate by hand. This often works better. You should also select the Restore Pure Colors option. This will remove stray pixels of color that don't belong. The gamut shift and correction factor define how far the dialogue goes in shifting colors. Somewhere between 90 and 100 percent will work fine.

→ 3. Although the manual tells you that the preview mode (X off) will show the results of using the Correct option, it isn't so. It will show you the result of using the Distort option.

Ultimately the really important part of all this fuss is correcting your monitor to match what will print. It may not be necessary to use the color correction dialogue at all! The truth is, I use it either with Distort or Correct most of the time. You can also use the graduation curves (or whatever), to get the image to look right. You'll be getting accurate, superb color reproduction every time! It beats the hell out of the algorithms used by other programs. Accuracy is what counts! Enjoy. ▲

DID CITY DATE BIG CITY BYTE

Howard Carson

**advice, warnings,
opinions . . . and a little
armorplate to help get you
through the day!**

"What are you doing?" my girlfriend asked, quietly.
"I am thinking," I replied.
"About what," she asked again.
"An article," I replied absently.
"An article? Who for?" she asked patiently.
"Oh just some magazine, you know," I said.
"Waddaya mean 'some magazine'? That's how you refer to Current Notes?" she asked, her voice rising slightly.
"No, no. Those people I wrote for last year, during the Spring; the people with the publishing company."
"Would you for pete's sake, be a little more specific!" she said loudly, exasperated.
"Huh?" I replied, looking up from my monitor.
"Who! Their names! Tell me their names and what the article's about! Respond please, like a normal human being!" she yelled.
"Oh, uh, sorry," I said meekly, "I was thinking."

"You won't get much done, sittin' around thinkin'. You're supposed to actually type on that keyboard in front of you," she said, calming herself.

"Huh?" I replied, stupidly.
"There's nothin' on the screen!" she exclaimed. "You haven't typed anything. You've been sittin' there for an hour!"
"Oh that's alright," I said brightly, "because I'm working with this new software. You type in your thoughts and ideas in different categories and it assembles an outline for you. You know, like a flow chart. Sort of."
"So where's the outline?" she asked.
"Well," I said, slightly subdued, "it seems that the software needs a few more, um, thoughts."
"You're an idiot," she said quietly, and stalked off down the hall.
Shortly after that conversation(?) took place, I got to thinking about productivity and software and some of the developments that have been showing up in the marketplace lately. I got to thinking about how people work, too. And I got to thinking about the so-called productivity enhancements the software industry claims to be providing. In the process of assessing real advances in productivity, I had occasion to talk with a wide variety of computer users. Surprisingly, the users with the most important, incisive things to say were the ones with the least technical knowledge about computing. The users with the least to contribute to the conversation (with a few notable exceptions), turned out to be the so-called 'power users'. The most assiduously applied work habits that I encountered (habits that spanned a working career from 1945 to 1989, and required using everything from an ancient Remington typewriter to a 286 PC complete with WordPerfect), were those of my Mother. She is also a woman who earned tremendous praise from a variety of high profile employers during a 44 year span.

Her comments went something like this

(and please remember, this IS my Mother):

"So Ma," I said to her, "what, in your opinion, are the greatest improvements in the working office over the past forty or fifty years?"

She replied without hesitation.

"The Xerox machine, the wordprocessing computer and air conditioning."

"What else?" I asked.

"Eat your soup, it's getting cold. Why aren't you eating? Aren't you feeling well?" she asked.

"I feel great," I replied. "What else do you consider to be a great improvement in the working office over the last four decades? What about the Fax machine or Fax software? Shouldn't that be included on the list?"

"Whose list is this?" she said in a combative tone of voice, "mine or yours?"

"Uh, well, yours of course."

"Good. In that case, don't include those stupid Fax machines. Who can work in a place where everyone can send a Fax to you, demanding you do something right NOW?? Hmmm? At my best I could type about 75 words per minute. Just because some schmo sent me a Fax demanding action, didn't mean I could suddenly type 95 words per minute to get my work done faster so I could attend to his problems!"

"Well is there anything else that YOU can think of which should be on the list?"

"What else should there be?" she said.

"What else does anybody need?"

"I don't know," I said vaguely. "What about Desktop Publishing?"

"What about it?" she sneered. "Just because some 'Joe Blow' in an office has a DTP program, doesn't make him another Conrad Black. All the DTP program does is allow him to color up

and decorate his crappy ideas and his crappy presentations. I just read an article in some computer magazine, about the latest wordprocessing and DTP software. You don't even have to decide on a color or a format or even the text of a form letter anymore; the software gives you 300 different macros to choose from. You buy this software to increase productivity and all it does is restrict your creativity and make your stuff look just like everybody else's. No personality. No soul. Who needs it!"

"Well," I said to her, "it beats having everyone sitting around in an office 'thinking'."

"Yes and no," she replied. "but you've got to remember that the worst thing you can give people is too many choices; like the macros in the DTP and the stupid Solitaire games supplied with the operating systems - games at work? Are they nuts? Work is called work because it's work. If they wanted people to enjoy themselves, they'd call it sex! Train people in the use of the old, proven, traditional letter and document formats, so that day to day facts and information can be conveyed with a minimum of fuss and bother. Every company should have its own standard document formats, composed by company directors and approved by the President or CEO or the Board of directors. Give good employees just a few tools and let them create whatever else is necessary. They'll always come up with good things. They'll always find a way to solve problems. The big corporations (and plenty of the little ones) have managed to substitute the limited horizons of hardware and software, for genuine human creativity and productivity. If you give most people a list of choices (like the Parameters in a piece of software), they soon start to believe that the list contains the only choices which exist. They stop creating. Are you going to eat that soup or not. Come on, there are beets, celery, chicken, cabbage, carrots, garlic, peas, onions and noodles in there. Eat."

"I'm eating, I'm eating," I said, quickly gulping some of the thick soup. "But Ma, what about the need for proper presentations? Nice letters? Professional forms? The use of full color?"

"For what?" she replied, staring at me in disbelief, "impressing some guy in a cheap suit who relies on his secretary to speak his mind in the first place? I don't think so. Besides, if you give me two fonts, a plain wordprocessor and a decent printer, I'll write a report that will knock your socks off AND look great in the

bargain! I did it for forty years and I didn't need any help from WordPerfect, Word, Ami-whatsits and all the rest. How the heck did anyone ever get anything done before computers? What do you think we all did?"

"Geez, Ma," I said, "you're awfully rough on these 'guys in cheap suits'. Everybody isn't incompetent, you know."

"Hmmm," she said absently, "I suppose not. But too many bright young people rely on the latest systems and software and management techniques. They've been trained to use the hardware and software and their thinking is limited by the boundaries of all that technology. Tools don't create anything. Brains create. If the brain is told to rely solely on tools, it quickly withers. The salesmen, travellers and consultants waltz in and sell everybody a new 'productivity' package. Unfortunately, the only people who can REALLY use the new package are the people who invented it. Everybody else suffers with it. No one has time to learn it fully, whatever it is. And the front office secretary still makes do with a ten year old wordprocessor, out of which comes the vast majority of what people see, related to the business. She doesn't have the time to learn this new stuff. She's too busy producing work of real value to the company. The only 'systems' she needs are a reliable operating system, a stable hard drive and a good, on-line spellchecker. Go figure."

"Come on now, Ma," I said, "surely a little color splashed here and there can't hurt."

"No," she replied, staring at me, "but it doesn't help either. The fact that a thing can be done in a certain situation, doesn't mean it's always appropriate. I'm impressed by perfect spelling and grammar. Take a good look around. The software makers have managed to convince everybody that a business letter from one branch of a company to another is no good, unless it's printed in 256 colors. This is progress? The content is still written in crappy English. All the pretty colors do is draw attention away from the poor content. This is good for business? Forget it!"

"But Ma," I said protesting, "people get bored with the same old, tired formats."

"That's because they haven't been taught to use their brains first, and the hardware and software second. I remember the office manager I worked for in 1988. He could make a document look like a million bucks. Unfortunately, he'd never learned to express himself clearly. So all his fancy fonts and layouts did, was make

everything highly legible. The document still didn't make any normal sense when you read it!"

She was right, of course. Fancy fonts, exotic backgrounds and gorgeous colors, can't make up for a piece of advertising that is poorly written or a business letter that is confusing. The pretty stuff is just pretty. A letter which does not first accurately convey thoughts, wishes, opinions, statements, policies or ideas, is merely a waste of good paper. If it is done up in full, glorious color, it is also a waste of good ink.

Productivity does not mean using every tool at hand. Productivity means using only what you need, to do the best possible job. Substance is everything. Appearance is merely nice.

So the next time you are tempted to buy yet another package of fonts or another exotic wordprocessor with pretensions to desktop publishing, throw some cold water in your face. Ask yourself how well your writing is going to read, not how nice it's going to look. Ask yourself if 1st Word Plus might be a more productive choice than Calamus. Ask yourself if 1st Word Plus might be a more efficacious choice than MS-Word. If Calamus, Quark (shudder), WP or MS-Word are more appropriate, so be it; but always remember to ask the question: "What's the best choice?"

If the notion of appearances has been weighing heavily on your mind lately, consider retiring your old 24 pin printer in favor of a nice bubblejet or laser. In many cases, the printers can be obtained for less than the cost of the fancy software. Having a real good dictionary ready-to-hand isn't a bad idea either.

Caveat Emptor applies with a vengeance. Beware of new software and so-called productivity enhancements. It is invariably better to improve your language and typing skills, than it is to spend yet more money on hardware and software which only dresses up fundamental, personal inadequacies. In business as in private life and personal relationships, what remains imprinted on others is your ability to express ideas and concerns clearly and concisely, not whether you chose pale green or red as the background for some correspondence.

Have a coherent day! ▲

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WIZZTRONICS TO PRODUCE NEW TOS

LINE? Some rather interesting talk has been going about that Atari Corporation has, or is about to, divest itself of its computer division to a US-based company – and that the company is Wizztronics, the company that handles the Falcon Rack 19" rack-mount case, the D.E.K.A. Keyboard Adaptor, the Zero-X sample dump/edit program, and the as-yet-unreleased Barracuda 040 accelerator board for the Falcon. Word is fast and furious that they intend to pursue actively the possibility of releasing an entirely new line of TOS-based computers for the MIDI market, including a laptop model. They are supposed to be working on a new, smaller, Falcon compatible motherboard. However, word also has it that it's not quite a done deal yet. Stay tuned!

NEW ZERO-X VERSION RELEASED: One thing I CAN report for certain about Wizztronics, though, is they have just released a version of Zero-X for all those Atari-based MIDI fanatics who haven't gotten a Falcon yet. The new version will run on any Atari ST or STe with 1MB of memory and a SCSI-to-ACSI interface like the ICD Link II, and will currently save samples via SMDI format like E-Mu's ESI-32, Kurzweil's K2000/2500, and Peavey's SP series of samplers, with Akai models from the S1000 up to be supported in future versions.

developed a new ISA-PC card that runs alongside Branch Always' **GEMULATOR ST Emulator card.** Called the ST-zer, it features both MIDI in/out and a cartridge port for connecting dongles, which means that it should be possible to run Atari versions of Cubase and Notator SL on a fast PC, as well as other popular Atari MIDI programs like EditTrack and Sequencer One. More on these products as the info comes.

COMPO UK GONE, ATARI WORLD ON HOLD: Compo UK, the major hardware and software source for Atari stuff, has ceased trading and gone into receivership. The company was known for their wide variety of hardware, as well as being the UK agency for companies like Gribnif, and were responsible for developing the current version of the SpeedoGDOS program. Also in receivership is Compo's Specialist Magazines Ltd. arm, which published the British magazine ATARI WORLD. Word is that issue #12 was about to be printed when the decision to cease trading went down. However, at this time Karl Brandt of System Solutions, another UK software/hardware house, is leading a consortium which is looking into purchasing Atari World and producing it again on a bimonthly basis, with an emphasis on readers taking out subscriptions or actually investing in the magazine. Best of luck to Mr. Brandt in his endeavors, as Atari World was/is one of the best and most informative reads in the business for the Atari user.

RAIDEN ON FALCON A REALITY! 16/32 Systems, another great UK software house/PD library (they saved popular Falcon games LLAMAZAP, EVOLUTION DINO DUDES, and STEEL TALONS from software limbo after Atari abandoned them), are going to be releasing the Falcon version of RAIDEN! The vertical blaster game, which is similar to the version released for the Jaguar, runs on both RGB and VGA monitors, features clean digital sound, and requires the use of the Jaguar PowerPad. As well, they will be releasing an off-road racing simulation (ROAD RASH?) that shows off the Falcon's excellent gaming capability. 16/32 Systems, 173 High Street, Strood, Kent, UK ME2 4TW; 01634-710788.

C-LAB TO OFFER CASE UPGRADE? C-LAB, the German company currently producing the excellent Falcon licensed clone, will be offering a case retrofit based around their upcoming Falcon MkX. The new top will allow for mounting two internal drives within the Falcon, as well as offering the ability to attach a separate PC keyboard.

NEW SYSTEM SOLUTIONS STUFF: System Solutions has been quite busy with some new releases of their own. First is their new ATAPI adaptor which allows IDE-based external CD-ROM units to be connected to your Atari via the cartridge port. The idea is to allow Atari users to use the cheaper IDE format and have instant access to the medium without having to splash out for extra interfaces. They'll be selling these both alone (£79.95) and also in a bundle with a 2X or 4X CD-ROM drive in a case and a copy of Mega Archive CD Volume 2 (which contains most of what's in the University of Michigan FTP site for Atari programs).

They are releasing a new CD of special interest to users of Steinberg's Cubase and Cubase Audio sequencer programs – the CD includes drum loops and sampled instrumental hits that can load right into Cubase Audio.

System Solutions has also released SpaceCase, their own 19" rack mount cases which musicians can use to recase their ST and Falcon systems for serious on-the-road applications. The two-tone, grey, double height case allows for installation of the motherboard with no soldering, and places the on-off switch, warm boot button, and floppy drive on the front. Options include a second floppy installation kit for ST owners, kits for installing 3.5" IDE and SCSI drives for Falcon owners, and the FreeKeys kit for converting the ST/Falcon keyboard into a separate unit.

Finally, E-Copy has just been released. This new disk formatter, designed to interface with the MagiC operating system, features fast formatting that goes on in the background while you take care of other things. It also features virus detection and immunization, the ability to store up to 8 different format settings (including Spectre 128 format), the ability to save boot sectors, and the ability to save your most-copied disks in a compressed format and making a disk copy just by clicking on its name on the desktop under MagiC! £29.95

You can order or get more information by contacting System Solutions at 0181-693-1919, or by contacting them at their Internet address at ssolutions@crx.compulink.com.uk.

NEW MAGIC-PC: Applications Systems Heidelberg (ASH), producers of MagiC, NVDI, and the MagiCMac system for running Atari programs on a Macintosh, has pulled another surprise. They have just announced, for release in the second quarter of 1996, MagiC-PC. Yes, you read that right. It's a version of MagiC that will allow Atari programs to run on a modern Intel-based PC through software, with no additional boards. It will be practical to run your favorite Atari programs on a PC laptop. Designed to work under Windows '95 with a minimum 8 MB RAM configuration, it's said to operate at twice TT speed under a Pentium 100-based system, and also allows for a high degree of software compatibility, due to its support of ST low, medium, and high resolution, as well as software emulation of the sound chip and printer port. Word is that ASH have managed to get some Atari games to run under the new program, as well as application software like Texel, Calamus, and GFA Basic. Suggested retail price is 299 DM (about \$200 US). Wait 'til Dave Barkin gets his hands on THIS!

NEW BLACK SCORPION PRODUCTS: Yet another UK production house, Black Scorpion, has been equally busy with new product. First up is the newest version of their popular APEX MEDIA art/animation package. Called APEX 3, the new version of the program offers the following features:

- * Full 24-bit image editing.
- * Extremely fast real-time operation.
- * Real-time zoom to any level of detail.
- * Anti-aliased (mip-mapped) real-time block operations.
- * Alpha channeled paste operations (8-bit masking).
- * Real-time alpha-channeled tools.
- * Variable alpha on gradients and masks.
- * Analog chromakey range masking.
- * Compound (multiple) filtering using a real-time brush.
- * Quick & easy cloning of pages for backup / editing.

NEMESIS (also from Black Scorpion/Titan Designs): this is a new hardware accelerator board designed for the Falcon, expected by May/early June. The board, designed to run with all properly written Atari software, features:

- * Bus – 24MHz – faster than most other accelerators and enables APEX 3 to achieve 640x480 (or higher), true-colour, non-interlaced on a VGA monitor. The higher Bus speed should also allow Expose' frame rates of 25fps at 256x160!
- * CPU – 24MHz – a lower CPU speed ensures total reliability. Exceeding 32MHz can prove unreliable in any case.
- * FPU – switchable between 24MHz and 48MHz – to ensure compatibility with different processors, i.e. FPUs rated at 16MHz may not 'take the strain'.

* DSP – 48MHz – much more important to APEX than CPU speed, as all versions of APEX are mainly machine-coded for the DSP.

Best of all, the NEMESIS board will be very cost-effective. Suggested price will be £49.95 (£39.95 to existing APEX users)

Black Scorpion is now also offering their own SIMM module memory upgrade board – what makes this one different is that it is designed to take a single 16mB SIMM chip. Suggested retail £39.95 unpopulated.

You can contact BLACK SCORPION at:

Tel: +44 (0)121-693 6669

Fax: +44 (0)121-414 1630

6 Witherford Way

Selly Oak

Birmingham B29 4AX

U.K.

NEW WWW131 PACKAGE: the best news of all has to be the newest release of the STIK/CAB World Wide Web Browser package! More Features: a totally rewritten

version of STiK that is more stable; CAB 1.2b, which now features an additional module (CAB_JPEG.OVL) that allows for loading of JPEGs in HTML documents, as well as improved printing routines; an installation program that works perfectly. It even includes pre-written routines for existing ISPs; additional programs for use with STiK, including ANTmail (an e-mail send/retrieve program) and FTP, Telnet, and IRC-client programs; 'mailto:' support for those links which allow you to send e-mail.

Download this package and try it out. Surf the Web for two or three hours at a time with NO crashes! The program is just getting better and better. It's time to send in my registration!!

(more!) DAN'S LIST OF COOL WEB SITES!

HANS MOLEMAN PAGE

(<http://www.peg.apc.org/~astley/mole.htm>): it seems everybody who's a fan of THE SIMPSONS animated TV show has a favorite character; and it's not necessarily a member of Our Favorite Family! This page is dedicated to the little old man who's constantly involved in dangerous accidents and life-threatening situations, and yet keeps coming back for more! Also includes links to other popular SIMPSONS characters like Apu, Lionel Hutz, and Troy McClure, as well as other related pages.

VOLKSWEBBIN'

(<http://www.oroad.com/volkswwebbin/>): like Atari users, owners of vintage Volkswagen Beetles and Microbuses are quite attached to their vehicles and would rather fight than switch! This page offers Volkswagen information, lore, and artwork, as well as links to other Beetlesque sites.

FENDERWORLD

(<http://www.fender.com/fenderworld.shtml>): owners of Fender's fine electric guitars and amplifiers should get a kick out of this site, which features an amp graphic that lets you go to the site you need to get to just by clicking on one of its knobs.

QUEEN (<http://queen-fip.com/>): you'd think I have a fixation with this great British group! You're right! But the band's official Web site, is very well designed and is definitely worth a look for the amount of information and artwork that's provided here. There are press releases, reviews, ordering of band merchandise, bios, and fan art.

THE TONIGHT SHOW WITH JAY LENO

(<http://www.nbctonightshow.com/>): The Chin That Walks Like A Man resides here. The site includes lists of the week's best routines and his popular HeadLines, as well as schedules for his upcoming guests.

WALLACE AND GROMIT

(<http://www.ardman.com/wandg/index.html>): These clay-animated characters, a wacky inventor and his dog, are huge in Britain and deservedly so. They've recently won their third Oscar in a row for Best Animated Short! This is the official site of the production company that created Wallace and Gromit, and includes a rundown on what it took to produce these clever films.

CRIMSONLINE

(<http://www.rockslide.com/crimson/>): another official web page for a band, this time for the constantly evolving and changing progressive band, King Crimson. This site has offshoots for the solo projects of each individual member of the band, particularly of the group's founder, guitarist Robert Fripp, as well as tour itinerary and merchandise.

WELCOME TO COCKROACH WORLD

(<http://www.nj.com/yucky/roaches/index.html>): this site, based at a university in New Jersey, will tell you everything you ever needed to know (and probably never wanted to) about these insect pests, including how you get them and how you get rid of them, the different types, and other neat stuff. Quick Ma, the Flit!

CNN WORLD NEWS

(<http://www.cnn.com/WORLD/index.html>): if you don't have cable, this is the next best thing to experience CNN's coverage of world events as they happen. The beauty of this site is that it's constantly updated as news stories happen from around the globe.

PEAVEY WORLD

(<http://www.peavey.com/>): is there any hardware related to the music industry that Peavey Electronics DOESN'T make? Have a look at this site and see for yourself. It includes up-to-date news on their ever-growing line of guitar and bass amps, PA systems, church sound systems, pro audio peripherals, guitars and basses, synthesizers, loudspeakers, effects, drums, samplers.

ULTIMATE BAND LIST

(<http://american.recordings.com/wwwofmusic/ubl/ubl.shtml>): a public service by the American Recordings record label, this site provides links to hundreds, if not thousands, of different music artists and bands from around the world, and also allows users to add to the list. Now, let's see if I can find Dread Zeppelin.

Got news? Concerns? Announcements? Send them to me at my E-mail address 'dreibel@io.org' and I'll see if I can get it to fit in print.

And remember: "if Rolls-Royces had progressed in the same way that computers had, they'd cost \$100, get 1 million miles per gallon, and explode once a year killing everyone inside." From a posting on alt.folklore.urban. ▲



Last but not least . . . don't forget to visit Current Notes' Web page at:

<http://www.io.org/~hcarson/cnpage.htm>

The pages are constantly changing, with new information about upcoming issues, reviews and coverage. If you'd like to link your own URL with ours, let us know! Like Dan, we're always looking for new contacts and interesting places!

Systems For Tomorrow

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MegaStc USED	\$325
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The ~~first~~ in a series on PIM's for TOS/GEM users

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Copy Editor Lianne Reitter, took a crack at DaCapo. She liked what she found . . . you will too! It's a solid, attractive piece of work . . .

DACAPO: self-described as an Address Manager. It turns out to be a very intense database for all of your pertinent people's, pertinent information.

You might not think that a PIM could be useful, until you are introduced to it properly. That introduction should not just include the individual program, but the whole concept of the program's use. But you might ask, "What the heck do I need an address database for? I've got my phone book and that's handy enough." An address book holds a lot of information: names, addresses, zip codes, area codes and phone numbers. How easy is it to change that information? Either erase the pencil marks (and tear half the page) or buy a new book (and transfer everything!) when the scribbles outnumber the legible entries.

These are problems that need solving, and when you get a good look at a great database like DaCapo,

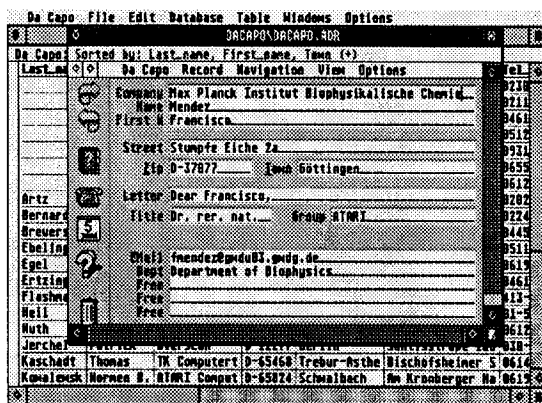
you will find things about it that are not just useful in your personal life, but which can also be a real benefit in your business life.

Along with the usual address information, you can enter an individual's company name, position, phone, fax and modem numbers. One very handy thing about the telephone entries is that once the cursor is in the phone number field, the option to 'Dial' will activate, and without lifting a finger you can dial the phone number. Lift up the telephone handset when you hear a voice by

the way; the program will not turn your modem into a speaker phone. If you have a computer without a modem, you're missing out. A modem is the cheapest piece of hardware you can buy these days and it is 1996 after all. Computer telecommunication is here to stay!

Another nice feature is that DaCapo has an entry for the country code. It's not something all North Americans are familiar with, but if you understand the concept of area codes, you get the picture.

Wouldn't it be great if just one year you could remember all of your



DaCapo is beautifully designed. This bootup screen presents a wealth of options, ease of access, and good configurability . . .

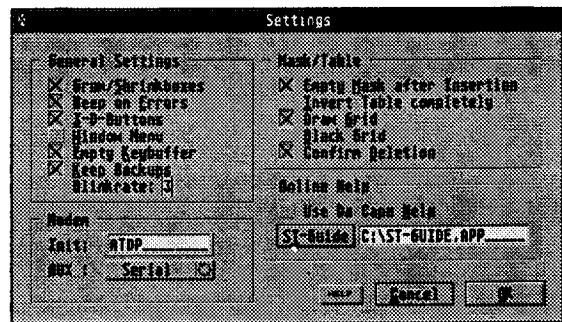
family's birthdays? Even Great Aunt Edna will be impressed when she gets your card; she won't know who you are, but you'll wind up in the Will anyway. Good for you! You couldn't have done it without DaCapo. Let DaCapo's little Auto Folder program know when all the blessed events are scheduled, and it will remind you either a week before, a day before, or on the day of the birthday (each time you bootup).

All this is fun, but where can you fit all the important information about each person in your life. You want to record more than just birthdays and e-mail addresses. What about likes and dislikes, recent accomplishments, or political inclinations. DaCapo gives you 2,304(!) character spaces for additional information. This paragraph alone has about 550 characters. The only info that shows in the information field is the first few characters. Click on the entry, and a whole page for typing appears before you. Pretty neat.

The nifty 'Letter' feature will allow you to record how your correspondence to each individual in the database should start. You wouldn't want to mistake your sweetheart for your landlord and start a letter with 'Dear Windbag'. The basic text editing functions in this type of PIM can be very, very useful. The editor creates standard ASCII files which can be imported elsewhere. Da Capo prints addresses, lists and correspondence via configurable, ASCII printer drivers. Pretty neat again.

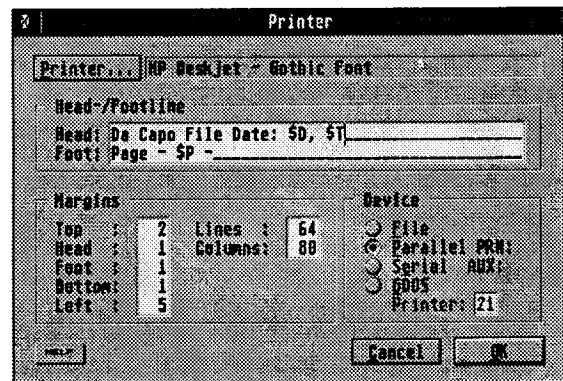
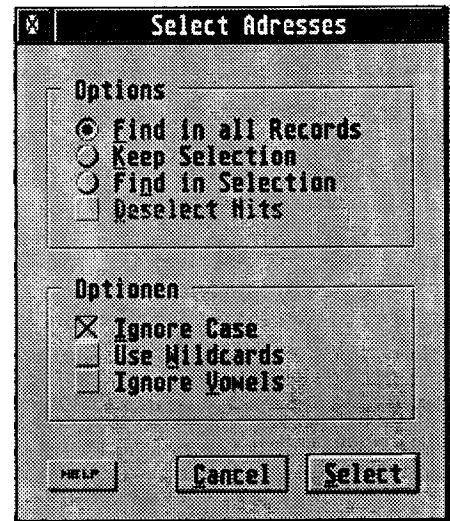
DaCapo runs on any TOS machine as a stand alone program or as an accessory, and also gets along well with Geneva, MagiC and MinT. It will take advantage of Speedo or True type fonts if they are available on your system. The background and text colors are configurable, the font style and size can be changed, and the extensive on-line help files will explain things to keep you going, should you hit any snags along the way. With ST-Guide installed, the Help system will take advantage of the wonderful hypertext way of jumping from one topic to another.

DaCapo is shareware, and with a nominal fee of \$20.00 U.S. you'll receive a registered version without the forty entry restriction on the demo version. For more information you can get hold of Denesh Bhabuta at CyberSTrider, 203 Parr Lane, Unsworth, Bury, Lancashire, U.K., BL9-8JW. You can also e-mail him at: dbhabuta@cix.compulink.co.uk -or- <http://www2.wildnet.co.uk/~dbhabuta/> ▲



Wonderful interface design & *useful* options

DaCapo's database works a lot like a 'real' database: search and selection functions are excellent . . .



Print using GDOS, print to a file, print appointments, calendars and addresses . . . and more!

**The Current Notes web pages at:
'<http://www.io.org/~hcarson/cnpage.htm>' has links to
Danny Bhabuta's pages and a lot of other great URLs. The
Current Notes pages are CAB friendly too . . . and have
links to all the major web search engines (Yahoo, etc.).**

TEXT EDITORS

We try to make them easier to choose and use!

A comprehensive review by Howard and the Gang!

UH-OH!

A promise is one thing, fulfillment is another. Often the two are mutually exclusive. The promise of a giant text editor review was both ill-advised and timely(?). The fact that it's done and printed, ready to read, is a tribute to bullheadedness and bias, rather than objectivity and skill. Sorry about that.

The problem was: after promising a comprehensive review of text editors, the actual task turned out to be monumental; not deciding on what features to review, but what specific editors to include on the list! In case anybody is unaware of it, there are literally two dozen legitimately decent text editors for TOS/GEM computers, which are available either as shareware, freeware or commercial products. There are another dozen text

editors, but they're either rudimentary, broken, terribly incompatible, or just plain useless.

The operating principle on which this review/overview is based therefore, is simply that a few text editors stand out so clearly from their siblings that they establish unambiguous and worthwhile benchmarks. It becomes possible in such a situation, to utilize the benchmarks to measure the viability of all the others.

That's what we did and as you'll see, the results are delightfully informative!

WHERE DO YOU BEGIN?

We settled on several fundamental criterion to establish our pool of benchmark software. After agonizing late

The business end of Edith Professional. It is massively powerful and brilliantly designed...

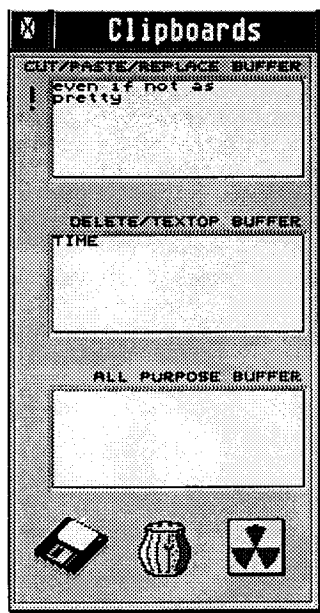
into the night it was determined that the first fundamental standard should be ease of use. A text editor does not 'do' fonts. It does not do fancy formatting (bold, subscript, superscript, underline, etc.). A text editor is a text editor, not a word processor or a document processor. It manages ASCII only. It must be easy to load and launch. It must be easy to configure. It must have menus with clearly defined, easily accessed options, and those options must lead to an array of features and tools which ease the writing, editing or programming process.

The second important factor is stability. A good text editor must load and run on a variety of TOS versions, Geneva, MinT/AES 4.xx and MagiC. While we dropped TOS 1.0 & 1.02 compatibility (Current Notes believes that every TOS/GEM computer owner should be using at least TOS 1.04), TOS 1.04-4.04, MinT/AES 4.xx, Geneva and MagiC compatibility was deemed absolutely essential.

The third caveat on the list is documentation. We found that most of the text editors we browsed had abysmal documentation. There was far too much chat and far too much disorganized technical detail. The best text editors (including the inexpensive or free stuff) were accompanied by documentation which was properly organized and clearly written. A programmer who creates a fine piece of software should be lauded and praised. If the same programmer runs out of steam during the creation of documentation, it is distinctly possible that his superb software will languish for lack of use. If a potential user can't understand the software (even with the manual), there is no way he or she is going to be able to use it.

The fourth criterion was difficult to decide, but we eventually settled on





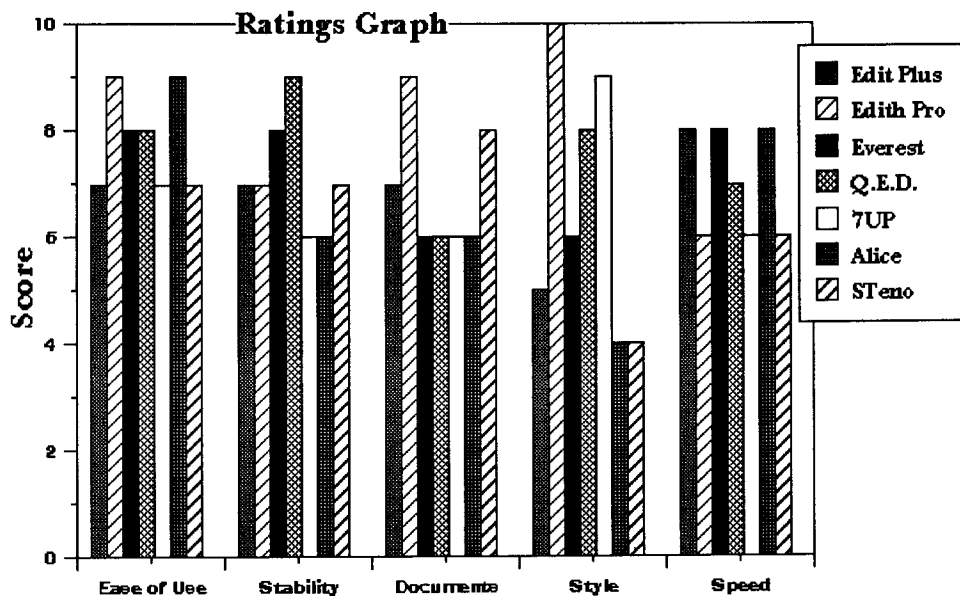
Edith Professional's three distinct Clipboards provide a tremendous amount of protection from inadvertent cuts and deletes.

grading the visual style of the software. We decided that in this day and age of 3D windows and buttons, pop-up help balloons, drag-'n-drop, multiple clipboards and so on, any currently supported piece of software which didn't at least pay some lip service to modern styling should go straight into the trash can. We made a couple of exceptions because the programs seemed so darn good in all the other areas.

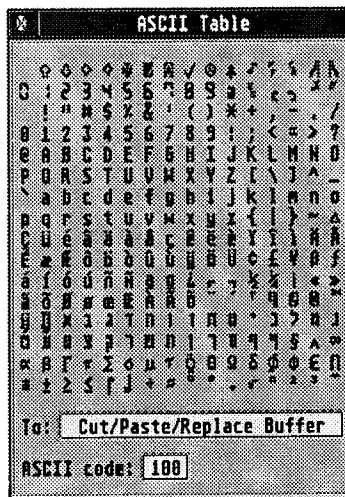
The fifth and final criterion was speed. Although speed was hampered somewhat by some iterations of the more graphically detailed software, there was still a good case to be made for utilizing benchmarks which were both attractive and quick. We were concerned mostly about how fast files could be loaded, how quickly files could be backed up (saved), how smoothly and quickly scrolling could be accomplished, how quickly search and replace commands could be executed and how quickly the software responded to typing, keyboard and mouse commands.

TEST A TEXT EDITOR?

The best way to test text editors is to use them, all at the same time, with half a dozen enthusiastic, experienced



volunteers. Everyone gets a chance to compare notes. The individual writing the review gets to talk to everyone at the same time (ask everyone the exact same questions), and observe the subtle differences in people's computer and keyboard use, which can often result in remarkably different responses. Of course, everybody involved in the test has got to try each and every text editor being tested. It's a fun and (occasionally) dangerous way to kill a long weekend; some testers disagree more vehemently than others when defending the efficacy of their favorite software.



Edith's pop-up ASCII table allows you to select any extended character and place it in the active window or any one of the active buffers . . .

There must also be half a dozen computers handy, along with monitors, hard drives, printers, AC power, power bars, mice (mouses?), desks, chairs, lots of paper, and lots of things (letters, transcriptions, etc.) which have to be typed.

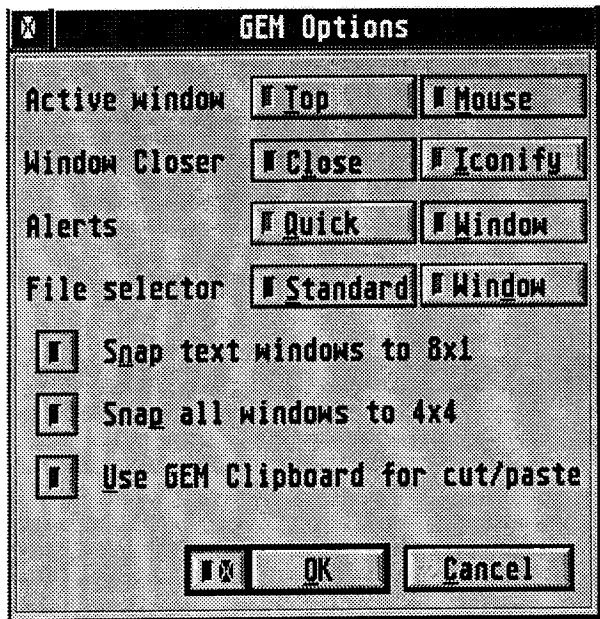
It all worked quite well actually, although we had to settle for a couple of testers who participated with us on-line, rather than in-person.

Check out the Ratings graph:

This graph shows how well each of the benchmark editors did, in the opinion of our testers, based on the criteria listed above. Your particular mileage may vary of course, but this graph is a good basis upon which to begin your own experiments.

WHICH TEXT EDITORS MADE THE CUT?

Edith Professional v1.221P, Q.E.D. v3.81e, Everest v3.5e, and Edit Plus v3.13, were chosen as the four preeminent text editors. We used them as our benchmarks, and then began culling the other twenty editors. It didn't take very long to come up with three runners-up: 7UP v2.31e, STeno v2.11, and Alice v1.42. Please make careful note of the fact that 7UP v2.31e was relegated to the runners-up group only because of its bizarre paragraph formatting routines; in every other way, 7UP is a match for both Edith Pro and Q.E.D.



Edith's gorgeous interface and dialogs are refreshing and intuitive. There is little else on any platform which is as well designed . . .

Edit	Search	Special
Undo		UNDO
Cut		AX
Copy line		AC
Paste		AV
Select block		AB
Select all		AA
Format paragraph		
Transpose		AT
Shift left		AJ
Shift right		AK
Capital(=)small		Aw
All to capital		A+
All to small		A-
Capitalize		A*

There it is! Q.E.D.'s funky Transpose command. Very useful!

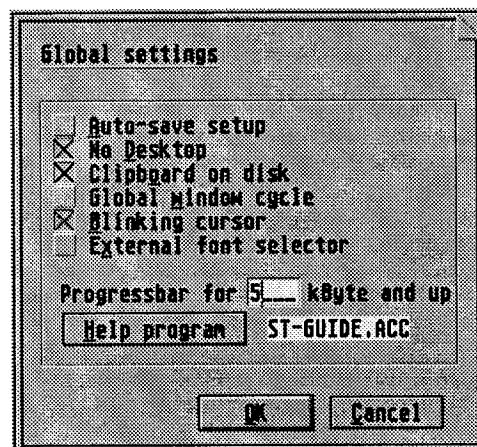
SO . . . WHO IS WHOM?

Edith Professional and Q.E.D. are the heavy hitters of the bunch (along with 7UP). They feature an enormous range of easily accessible tools. They feature reasonable to excellent speed, superb good looks, and in the case of Edith Professional serve up the most nascently intuitive interface on any platform. Amazing stuff. Annius Groenink, the Edith programmer, is a Mathematician in the Netherlands and is currently busy porting Edith to Unix. Q.E.D. is the brainchild of Tom Quellenberg, who passed along development to Christian Felsch in Germany (who is continuing to develop this superb editor). Edith is available from most Atari dealers or from ABC Solutions. Q.E.D. is shareware and can be registered with the author.

Edith Plus erupted out of the mind of Craig Harvey about six years ago. It was originally called EdHak. After a brief teething period, Craig offered EdHak as

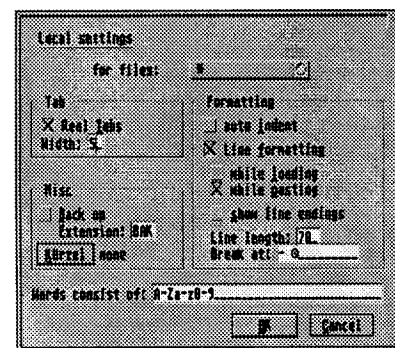
shareware, and later turned the program into a viable commercial product. It is probably the most widely used, commercial text editor in North America. It is also the odd duck of the bunch because of its radically non-standard interface. It presents a normal GEM window, but with only one menu item which drops down to reveal two small pages of selections, arranged in two columns. Edit Plus will edit just about any file you care to through at it: binaries, text, disk sectors; you name it. Edit Plus is available from all Atari dealers and directly from Craig Harvey.

Everest is definitely the best general text utility of the bunch. It's fast, and suitable for a wide variety of tasks. Everest also verges on some of the serious power displayed by the heavy hitters. Everest is extremely well supported by its German author Oliver Schmidt. The program is top-notch shareware and can be



registered through Oliver or via Joe Connor's excellent shareware registration scheme.

STeno is a commercial product from Gribnif Software and was originally coded by Eric Rosenquist (of STalker fame). STeno development continues under the skilled hands of Jeffrey Krzysztof. It is a good, basic text editor, designed originally to run as an adjunct to STalker. STeno can be purchased from any Atari dealer or directly from Gribnif. 7UP is the curious one of the bunch. It is the brainchild of Michael Thanitz, a immensely talented German programmer. Although 7UP has every bit as much power as Edith and Q.E.D., its huge drawback resides in the fact that text paragraph and file reformatting is poorly implemented. It is a powerful editor which is really most useful in the hands of programmers. Michael provides responsive on-line support for all



Q.E.D.'s basic text functions are logical, configurable and useful . . .

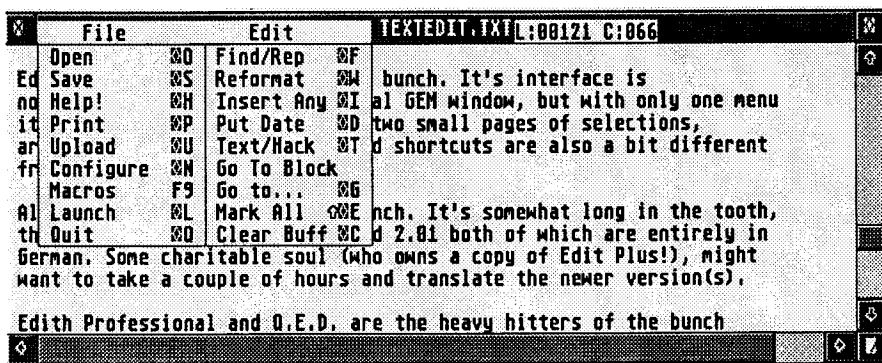
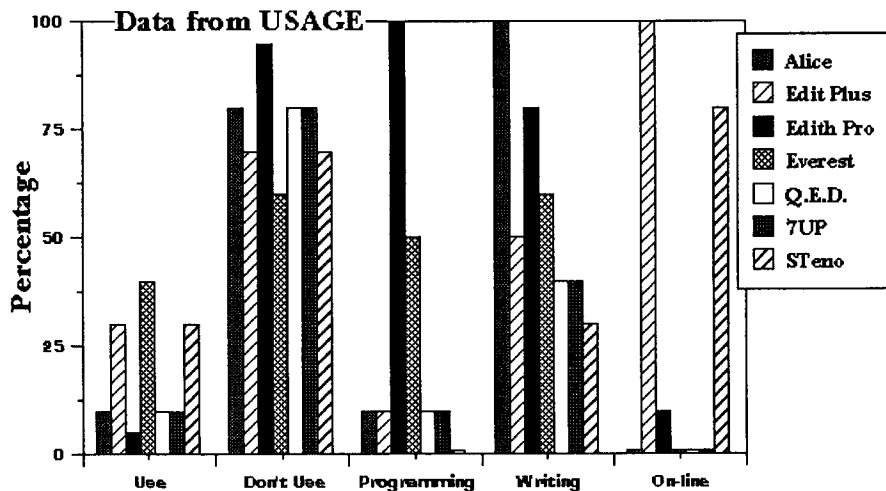
GEM dialog design has come a long, long way. Q.E.D.'s grey-on-grey, 3D boxes are attractive, easy to read, and (like Edith and 7UP) rival anything to be found on any platform . . .

registered users (and you can register directly through him).

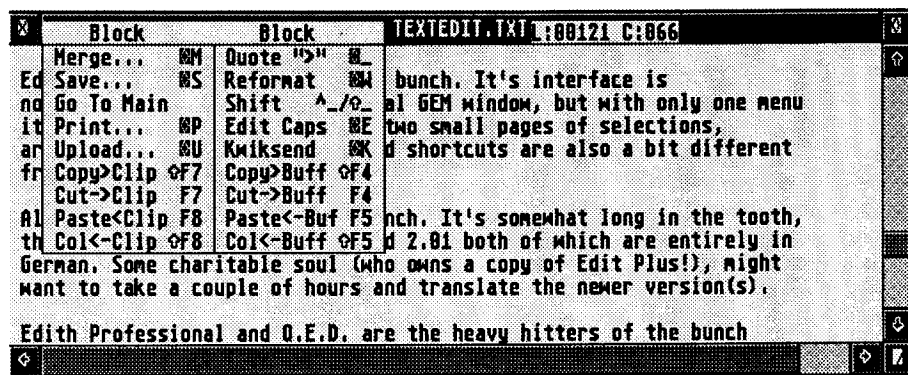
Alice is the plain one of the bunch . It's somewhat long in the tooth too, though there are Alice v2.0 and v2.01, both of which are entirely in German. Some charitable soul might want to take a couple of hours and translate the newer version(s). The only deficiency Alice demonstrates is its lack of word wrapping (more about this later). Alice is a Public Domain German product by Ralf Kaufmann of Essen, Germany.

TEENY-TINY TEXT AND MAJOR BIG-TIME FILES

Let's review some Straw Poll results! In an effort to determine the uses to which typical users were putting these editors, we did some basic phone calling.

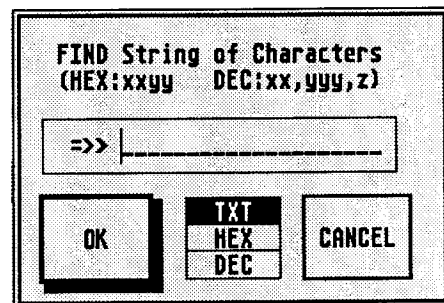


The unusual Edit Plus menu. It's very different . . . but it works extremely well!



Edit Plus' menu is so different it has two pages!

In order to come up with a list that was locally accessible, we culled 200 names from the latest Toronto Atari Federation membership lists (it's still a *big* club!), and irritated them all with a brief quiz.



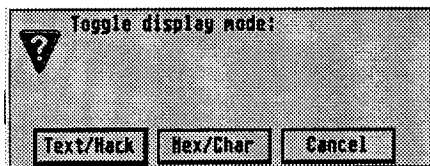
Edit Plus has a lightning fast search/search and replace routines. Note the HEX and DEC choices . . .

Most everyone cooperated, and provided us with a basis on which to proceed with the aforementioned wild weekend. Zowie.

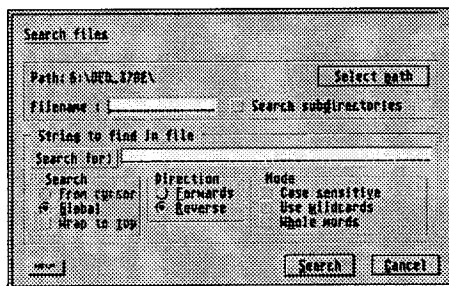
Check out the Usage graph:

The first two usage indicators ('Use' and 'Don't Use') show the percentage of those surveyed who use the benchmark editors. The last three usage indicators ('Programming', 'Writing', and 'On-Line') show how much each editor is used for each task. If the numbers don't always add up to 100%, it's simply because people don't always use text editors for all their text editing tasks; almost everyone owns word processors and/or document processors as well.

It's obvious from our poll and graph that Edith Professional, Q.E.D., Everest and 7UP are used primarily for writing, text editing and programming. It is equally obvious that Edit Plus and STeno are the most widely used text editors on-line, by



This innocent looking little Edit Plus dialog is the key to the program's popularity. It will edit just about any kind of file



Search and replace functions are fundamental to any genuinely useful editor. Edith Pro is the champ, but Q.E.D. is not bad at all . . .

a rather large margin.

Most of these editors (except Alice and STeno) are also capable of displaying text in points sizes other than the normal 10 point, bold, TOS system font. As a matter of fact, some of these editors (excluding Alice, Edit Plus and STeno) are also sensitive to the presence of SpeedoGDOS (or NVDI) and can be configured to use the font of your choice for display. Everest, Edith Pro, and Q.E.D. will also use GDOS for printing.

For those among us who make a living at writing (or who just do an awful lot of it) there is no doubt whatsoever that Edith Professional has the most comprehensive array of writer-friendly features. In addition, Edith is capable of handling text files which are truly enormous: try 9MB research documents on for size! The runner up in the smooth handling of large files sweepstakes was Q.E.D., with Everest a close third. Although Edit Plus uses an automatic swap feature for files which are larger than its configurable

buffer size, and although 7UP claims to be able to handle monster-sized files, neither of them could match Edith and Q.E.D.'s stability when poking around in or creating really large files. Edith doesn't do anything very quickly (compared to Edit Plus or Everest for example, which are real speed-burners), but Edith doesn't slow down at all when managing big files either.

Alice manages medium size files well (albeit more slowly than the others) and is associated with the management of large files too. It's used to browse and search through the 3MB catalog text file on the Suzy B's Software Treasury CDs. Alice's biggest problem is the fact that it doesn't wrap (format) words or lines. This is a very serious drawback in a modern text editor. However, Alice has a rosy combination of other user friendly features. Alice's heritage is that of a typing program however, and therefore requires that you hit 'Return' at the end of every line; a soft bell is thoughtfully provided (just like a real typewriter) which 'dings' with each keystroke if you continue typing past whatever column you've set as your right margin.

FEATURE WARS!!

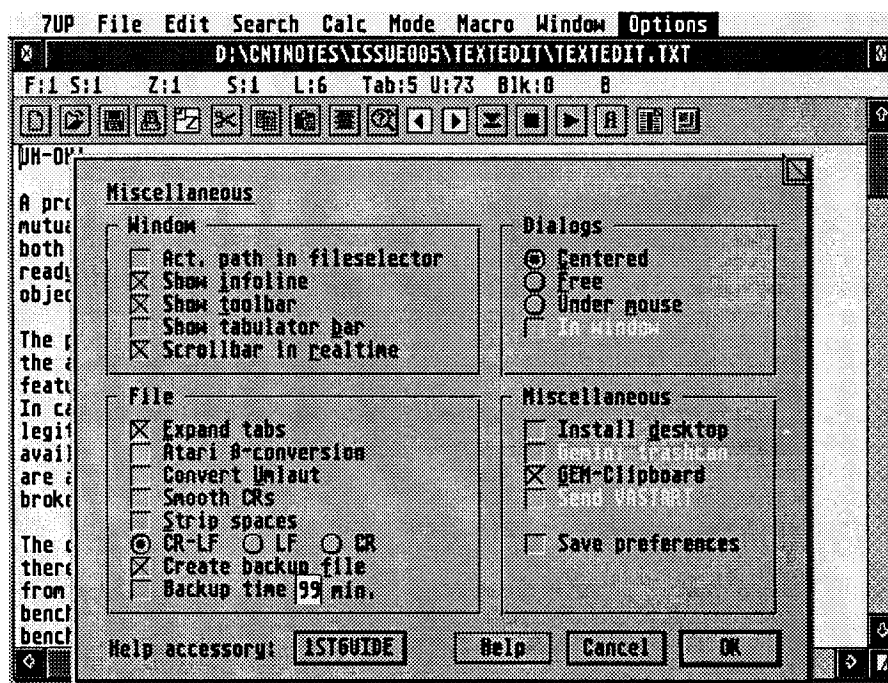
Edith, Q.E.D. and 7UP boast a

comprehensive list of features which are absolutely stunning. These three programs are spectacularly facile in their ability to call forth writing and editing functions for programming and text manipulation; genuine aids to quick, effective, and detailed programming, writing and text transcription.

→ Edith Professional:

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, open a file from a stored list, close a single window/file, save, save as, save a marked block, import a binary, set up project and programming sessions, print via GEMDOS or GDOS (in single or multiple columns with a variety of cut, copy, paste, delete, overlay (Edith allows you to cut, copy, paste and merge columns!), select a single letter, select a single word, select a single line, mark blocks, mark quadrants (isolated sections), select entire documents, shift text to the left, shift text to the right, turn word wrap and indent on and off, capitalize, reduce to lower case, increase to upper case, compress tabs, expand tabs, kill trailing blanks, erase, sort, reverse



7UP is not too shabby looking? It's actually downright terrific looking! Any similarities to Windows apps are purely coincidental. Ditto for Edith and Q.E.D.

HARD DISK SENTRYtm

The best selling disk repair and optimization utility for all Atari ST, STe, TT, & Falcon030 computers.

Get the world's best selling hard disk optimizer (defrager) and speed up your hard disk's performance! Hard Disk Sentry works flawlessly with all Atari ST, STe, TT, and Falcon030 computers. Hard Disk Sentry will diagnose and repair common - and dangerous - disk problems on hard disk partitions of any size. It even works on floppy disks and Syquest drives.

Hard Disk Sentry now includes the Quickopt module that allows for unattended optimization of hard drive partitions. You can specify any partition(s) to be optimized via simple command line parameters. Quickopt will analyze the specified partition(s) and, if no problems are found, will optimize them. Quickopt will NOT attempt to optimize any drive on which it encounters errors. It will, however, keep a log of all errors it finds so you may repair them using Sentry.

Total FAT clusters	18497	Bad File Endings	0
FAT File Starts	3151	Invalid FAT clusters	0
FAT File Ends	3151	Chain collisions	0
Contiguous Clusters	13812		
Non-contiguous Clusters	56		
Total Files	3157	Orphan Files	0
Total File Clusters	16219	Orphan Descendants	0
Free Clusters	2277	Orphan Clusters	0
Recoverable Clusters	0	Total Errors	0
Unuseable Clusters	0	Total Good Files	3157
Unknown Clusters	0		
Status display for Volume J			
<input type="button" value="Continue"/> <input type="button" value="Print"/>			

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Fax: + 1-417-624-0700



order, format, cut lines, delete lines, search, search for multiple targets, replace, push positions (intelligent bookmarking), pop positions, replace, go to specific lines, flash matching brackets, operate in replace or insert mode, iconify, cycle windows, cycle dialogs, tile vertically or horizontally, increase or decrease font size, use speedo(GDOS) fonts for display, choose different fonts for different dialogs, utilize a note/memo pad/window, record and use macros, use kurzels (auto expanding abbreviations), call a selectable ASCII table, call one of three internal clipboards, restore deleted text which is out of the reach of the 'undo' feature, and call a variety of filters (modular utilities), which provide information about file size (bytes, number of lines and words, average line and word length, line style), history of usage, provide unix-style spellchecking, quote text blocks for you (for answering e-mail!), and even bring up a useful calculator. Whew!

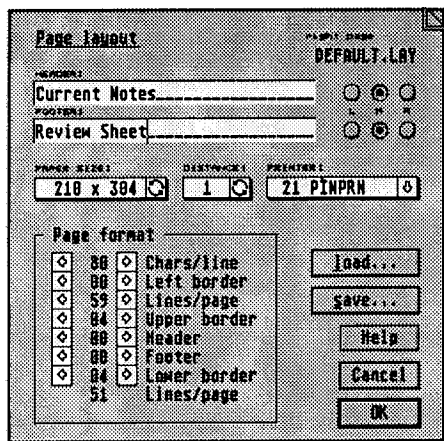
Edith Professional performs admirably under TOS, MinT/MultiTOS (and AES 4.xx), and MagiC. Edith suffers a noticeable slowdown when running under Geneva. Edith's word wrapping and justification routines are superb, although cutting and pasting generally

means you have to move the cursor to the beginning of a line and hit F4 to reformat. Edith also reformats columns (because of its ability to do overlays). It is an impressive, heavy duty performer. Edith's search and replace functions are extremely well-mannered: you can search and mark, mark the first instance, mark single words or whole lines, and replace one or more instances. Edith is the only text editor of the group to implement Drag & Drop between its clipboards and/or between open windows. Edith also supports background window operation, and has built-in auto window topping routines (although you don't have to use them; simply placing the mouse pointer over an open window will activate it for typing and editing without topping it!). Words can be capitalized or changed to upper or lower case without having to first mark any text. The search and mark feature allows you to locate specific instances of letter sequences or words, and then utilize the capitalize or lower case functions to alter entire documents. Edith also sports its very own file selector which runs in a window (pre-dating Freedom by a couple of years!), and all its dialogs are non-modal. Edith runs as a prg or acc. Despite detail, complexity and power, it affords surprisingly easy and intuitive use. It really is a brilliant design.

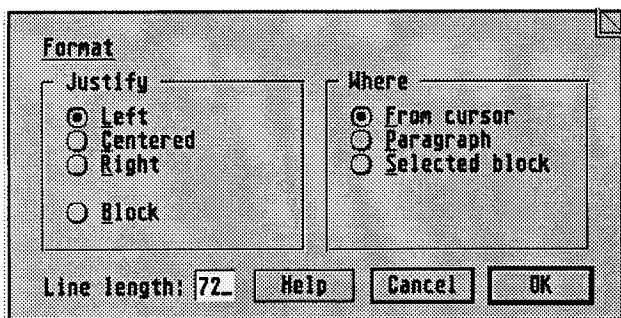
→ Q.E.D.

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, merge a file, begin (or open) a programing project, close a window/file, save, save as, revert to the previous file, cycle windows, print via GEMDOS (using some supplied, well written drivers rather than generic Epson routines) or GDOS using, obtain individual file info (time and date stamp, size in bytes, number of lines), undo previous actions, cut, copy, paste, select blocks, select entire texts, transpose (this fabulous feature allows you to place the cursor between two letters which are reversed and hit CTRL-T to un-reverse 'em!), shift text to the left, shift text to the right, capitalize, increase to upper case, decrease to lower case, search, search and replace, go to specific lines, set bookmarks, compress tabs, expand tabs, convert tabs (from true tabs to editor tabs), record and use macros, call a selectable ASCII table, operate in insert or overwrite mode, tidy up (resize) multiple windows, autosave files, reload the last file (or any specified project) you were working on when you last shut down the program, call a shell (such as a programming shell), call a compiler,



All of the top-rated text editors have useful, configurable printing functions - 7UP is no exception and (like EdithPro and Everest) will use GDOS if it's available . . .



7UP was kept out of the top three spots because of its awkward formatting routines. The routines are very powerful for someone writing programming code but regular writers will be frustrated.

'make' file, link project sections, make and execute code via a shell, and store a variety of commands in function keys. Whew again!

Q.E.D. runs as a program only. It is a quick performer, sports delightful, 3D, grey on grey dialogs (a la no|Desk), quick, smooth scrolling, perfect stability under TOS, and multitasks extremely well under Geneva, MinT/AES 4.xx and MagiC. Q.E.D.'s continuous paragraph formatting ensures easy to read/write documents, no matter how much cutting and pasting you do. There is a partially implemented reformat command to help out, whenever the program doesn't reformat properly. Q.E.D.'s search and replace functions are almost as elaborate as Edith's. Q.E.D. requires letters and/or words to be highlighted before they can be capitalized or changed to upper or lower case, a process which renders such functions somewhat useless; it is faster in most instances to simply delete a word or letter and retype it. However, the search

and mark feature allows you to locate specific instances of letter sequences or words, and then utilize the capitalize or lower case functions to alter entire documents. The CTRL-T (Transpose) command works without having to highlight anything however, and remains the most singularly useful feature of any text editor on the market. Q.E.D. is almost as well designed as Everest, in terms of easy, intuitive use.

→ Everest

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, merge a file, abandon (clear a file you're working on), save, save as, close a window/file, cycle windows, save changes only, print via GEMDOS or GDOS, cut, copy, paste, delete, reformat, shift text to the left, shift text to the right, quote text for e-mail, select a single word, search,

replace, go to a specific line, flash matching brackets, set bookmarks (Everest calls them labels), tile windows vertically or horizontally, operate in insert or overwrite mode, display info on individual files, use kurzels (auto expanding abbreviations), call a programming shell, and utilize compile and make commands.

Everest runs as a program only and is very fast, even with the maximum number of windows open containing large files. Its file list feature makes it easy to keep track of what you've got loaded. While it doesn't have all the writer oriented typing features of the heavy hitters, it can reformat large paragraphs and documents in far less time than it takes to tell about it. Everest's most salient virtue is the fact that it is extremely usable. What that means is Everest has a straightforward interface with a lot of power at hand just beneath the surface, which is intuitively accessible. The program is a fine multitasking application, and seems to run flawlessly under all the the current multitasking environments. Oliver Schmidt has also implemented something in Everest's code that prevents any cursor, delete key or backspace key overrun, irrespective of XControl Panel keyboard settings or how long you hold down a particular key! The coding is probably illegal as hell, but everybody loves it. Everest is arguably the most popular shareware text editor on the market and is as easy to use in its simple manner as Edith is in its more complex manner.

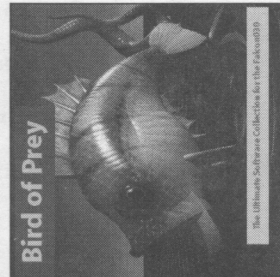
→ Edit Plus

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Open a new or existing file, save, save as, print blocks or entire files, upload blocks of data (text) to the serial or MIDI ports (handy for those who use a VT-52 terminal or console window such as those provided by no|Desk, Thing and MagiC), send blocks of text into other applications (this works beautifully in conjunction with STalker (which gets along perfectly with this so-called 'Kwiksend' feature), quote text for answering e-mail and then Kwiksend while on-line(!), record and use macros, search and replace, reformat, operate in insert or overwrite mode, insert the date at the cursor position(!), operate in text or hack mode (hack mode allows you to edit and properly save binary or hex code, one of Edit Plus' inimitable

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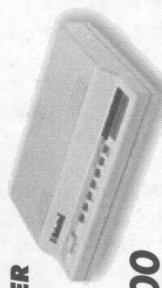
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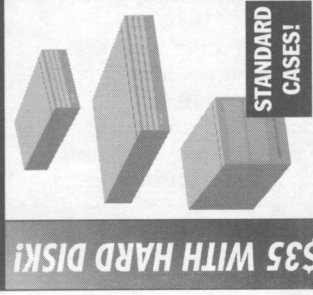
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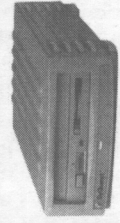
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features), mark and unmark blocks, mark an entire file, go to specific blocks and lines, use the clipboard or RAM buffer for editing blocks, increase text to upper case, decrease text to lower case, capitalize, and clear the text window of its contents.

Edit Plus runs as a program or an accessory. Although it will not open more than one file window at a time, you can launch multiple iterations of the program and open texts simultaneously; it's awkward but it works! Craig Harvey provides masterful support for all of his registered users, spending a lot of time on-line answering e-mail. Edit Plus' most striking features are centered on its ability to edit almost any kind of file: it's used regularly by hundreds (if not thousands) of users to translate RSC files, PRG files (from German to English), hack disk sectors, as well as writing and editing normal text. It seems to work flawlessly under all the available multitasking environments and all the available TOS versions. Once you get used to the funny menu system, Edit Plus will likely become your editor of choice for a broad range of small editing tasks. Edit Plus is not aimed at any particular group of users (or tasks); rather, it is designed to be able to edit anything, quickly and effectively. Craig's

unconventional design succeeds admirably. Like Edith Professional and Everest, once you use Edit Plus and get to know it, it is unlikely you'll ever give it up.

→ 7UP

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, pick a file from a stored list, insert a file, obtain extensive information on individual files (creation date and time, number of lines, number of pages, longest line, and the number of active files), close individual windows, save, save as, abort, call a TOS shell, set up different page layouts, print via GEMDOS using a combination of variables, undo last operation, cut, copy, paste, select blocks or entire files, shift text to the left or right, sort lines, toggle case, increase marked blocks to upper case, decrease marked blocks to lower case, capitalize marked letters or words, search and replace, search inside other files, mark blocks, go to lines or pages, call a rather extensive mathematical and statistical calculator, customize the calculator's notation base, operate in insert,

overwrite, block or column mode, record and use macros, use kurzels (auto expanding abbreviations), close all windows, tile windows vertically, horizontally or staggered, call a selectable ASCII table, compare texts for differences, check matching brackets, and preview text for printing (a series of page thumbnails are displayed showing your spacing and how the text will look on the page!).

7UP is a masterful, smashing looking piece of work. It sports a delightful icon bar and information line in every window which provides continuous file, layout and positional data as you type. It will format paragraphs properly, but not before they're first fully justified, re-marked, and then reformatted; it's a needlessly lengthy, four step process which all the other editors do in one or two steps. It's also a process which prevents 7UP from fully embracing its benchmark aspirations. 7UP is so attractive and useful in other ways that people have registered it without fully acclimating themselves to its odd formatting method. 7UP's formatting method is quite powerful when used by programmers, but is quite unsuitable for writers or editors.

→ STeno

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, insert (merge) a file, save, save a marked block, save as, print a file or a marked block, undo the last operation, cut, copy, paste, delete, mark and unmark blocks of text, print via GEMDOS, select entire files, reformat paragraphs or entire files, search, search and replace, go to specific line numbers, expand tabs when saving or cutting and copying, call the accessory version of STeno as a type-ahead buffer for STalker, send quoted or unquoted blocks of text to STalker, call STalker, and tile its window with STalker's.

While STeno's function and feature list is a bit short, the program's usefulness in conjunction with STalker is undeniable. It is a perfect companion to STalker (and just as fundamentally stable, which is a good thing!), as well as being a reliable, basic text editor for occasional use with small to medium size files. STeno is unadorned and functional, and has one concession to luxury: it displays cursor position information in the title bar of the window. Like Edit Plus, STeno will only display one file at a time. If you use

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STalker and/or have limited ASCII editing needs, STeno is definitely the software of choice.

→ Alice

In the middle of a document (or anywhere else) you can use the mouse or keyboard shortcuts to:

Start a new file, open an existing file, close the top window, close all windows, save (which closes the current file window), save as (which closes the current file window also), back up (save and resume), back up as, print via GEMDOS, mark and unmark blocks, cut, copy, insert (paste), delete, clear the cut/copy buffer, select from a list of loaded (active) files, search, search and replace, go to line, go to page, call up basic file info (number of pages, lines, longest line, number of letters), and delete entire files.

Alice is a nice enough, fast enough, functional enough text editor, which only falls down when you consider it lacks the ability to auto-wrap. That omission alone is enough to demote it to runner up status. It is very stable under all operating systems however, and provides efficient text editing, reliable multiple windowing, and that nifty time & date display in the upper right corner. Alice made the selection cut primarily because it's stable, functional, compatible and free.

MANUALS (RTFM?)

Edith Professional's A4 size, printed manual, replete with screen shots, table of contents and index, is far and away the best manual in the group. Edith also features context sensitive, on-line help which does not require the presence of ST-Guide, TurboC Help, 1st Guide, or any other accessory Help utility. The on-line help is nearly as extensive as the printed manual. Annus has done a wonderful job of providing easily accessed, clear and lucid guidance.

Edit Plus and STeno are supplied with booklet sized, complete, well-ordered manuals, which are required reading for anyone wishing to get the most from either editor. Both editors also have pop-ups (accessed via the Help key), containing a list of all the standard keyboard and mouse commands. Edit Plus' pop-up actually contains the program's entire command structure.

Q.E.D. can access on-line help, but only via ST-Guide. 7UP can access on-line

help, but only via 1stGuide. The Hypertext files supplied with Q.E.D. and 7UP are comprehensive and useful, though 7UP's suffers from translation inconsistencies. There is no English manual of any kind available for Q.E.D. There are no DOC files supplied in the event that Help accessories cannot be utilized.

Everest is supplied with an extensive, well-ordered DOC file, which is a must-read for anyone wishing to get the most out of this excellent editor. It is one of the better written DOC files for any program, having suffered few (if any) problems during its translation. Everest will also make use of the TurboC Help accessory if it's present.

Alice (bless her simple heart), doesn't have any regular manual or DOC file. Alice has a few small, simple on-line help screens which can be called via mouse or keyboard, and which deal with mouse, keyboard, block and window commands and functions. Though seemingly barren and useless, the help screens are thorough and appropriate enough for Alice's unpretentious aspirations.

CONCLUSION – THE BIG DECISION!?

So what do you buy or register? Good question! The answer is that there is no answer which applies to all individual needs!! All of these babies have their intrinsic virtues which make them ideal for a lot of different people, working under a lot of different circumstances. The fact remains that one of these excellent programs can't answer all your needs; you must have at least two of them (or two of your 'equivalent' favorites among the dozen and a half also-rans).

The FIRST PLACE combination is Edith Professional, and Edit Plus.

The SECOND PLACE combination is Q.E.D., Edit Plus and/or STeno.

The THIRD PLACE combination is Everest, Edit Plus and/or STeno.

The FOURTH PLACE combination is 7UP, Edit Plus and/or STeno.

The FIFTH PLACE combination is Alice, Edit Plus and STeno.

Here's the short list of editors we culled to come up with our benchmark programs:

Edith Professional, Edith (shareware version), Q.E.D., Everest, Edit Plus, EdHak, 7UP, Oddball (no kidding), EMACS (shudder), vi (shudder), Flash (it's

a telecommunications program, but the built-in text editor is pretty darn good), Freeze Dried Terminal (ditto), ST Writer, Tempus II (a real gem, but discontinued in its original form; the new release of the Tempus Word series has remade the program into a German-only word processor), Edwin, Elvis, Easy Text, Pen Pal, Pro Edit, MGWriter, STevie, and SpiritEd (which almost made the cut; it's worthy of consideration).

OH YEAH? DEDICATED SOULS & DOIN' THE RIGHT THING!

The testing group/party, consisted of: Bill Johnstone, Lianne Reitter, Howard Carson, Steven Burris, Jack Reikel, and Donna Hemsley.

By the way (for those who give a darn about such things), at the end of the first week (after the massive testing day), virtually all the testers had put Edith Professional, Edit Plus and Everest into regular use on their systems. Two testers substituted Q.E.D. for Edith Professional, and STeno for Edit Plus. Also for those who give a darn about such things (and you should!), all of the programs tested were registered versions, fully enabled, and supported by their respective authors.

That it (that's enough)! ▲

For those of you who give a darn about such things, products submitted for review to Current Notes often go through a variety of hands. The testing crew consists of 16/32/64 Editor Eric March, Copy Editor Lianne Reitter, Electronic Technician Steven Burris, and Editor Jack Reikel. Certain products are tested by individual Editors and Contributors too, and all subjective data in any review is examined carefully for accuracy. 'alt.info.everything' Editor Dan Dreibelbis dabbles as a product tester from time to time, and frequently provides insights which make the rest of us jealous! Contributor Steven Demetrius has gone as far as developing his PEX'y product rating system (PEX'y stands for Product/Program EXpectations). David Barkin reviews things as he sees fit, and since he's liable to sick the dog on us if we interfere, we let David do as he pleases (he hasn't disappointed us yet!). Publisher Robert Boardman and Managing Editor Howard 'The Boss' Carson complain long and loud about not getting enough testing time.▲

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Hey, I'm Back!!

It's been a few months since I have been able to submit something to Current Notes. I've missed writing – writing for fun, that is. For the past few months I have been busy completing my final project so I can graduate from Johns Hopkins, which is happening in two weeks. Longtime readers of Current Notes know that I have been working on my degree the entire time that I have written for Current Notes; since Fall 1989. So, it's fun to finally get that out of the way and return to some other pastimes.

Before I move on to other subjects, you might be interested in hearing about my final school project. I have had a longtime, historical interest in Maryland and her most prominent cities, Baltimore and Annapolis. The Maryland State Archives has superb primary source materials about Maryland history and as luck would have it, the State Archivist teaches at Hopkins. He and I got together for a few classes and coincidentally, he was doing a lot of history projects development for the *World Wide Web* at the same time that we were putting Toad on-line with our T-1 connection. We compared, on many subjects.

One of the publications created by the Maryland State Archives is a

document packet called "*Celebrating Rights and Responsibilities: Baltimore and the 15th Amendment.*" The 15th Amendment was passed in 1870 to give Black Americans the right to vote. While many states already granted this right either as a condition of readmission into the Union or by the will of their own state legislatures, the Constitutional amendment was needed in order to coerce border states such as Maryland, Delaware and Kentucky into universal suffrage. On May 19, 1870 the largest celebration of the ratification of the 15th Amendment was held in Baltimore. Ironically, Maryland's state legislature rejected the amendment! As you can see, there's a bit of a story here and some drama too. For my final project, I brought the document packet into HTML, added a lot of explanatory text and even created some animations and other special effects.

As far as we know this project was the first ever submitted as a **URL** at Johns Hopkins. No paper was required; I merely said, "Here's the address, grade it." It was so well received at Hopkins it earned the Outstanding Student Award and coverage articles in Hopkins publications. It was fun. If you'd like to visit the site, it lives at [HTTP://WWW.TOAD.NET/~DAVE/PROJECT](http://WWW.TOAD.NET/~DAVE/PROJECT).

Continental Platform Drift

As Atari has not been developing their computer line for the past couple of years, it has been interesting to see how the platform has been progressing. I argue that the Atari computer itself is no longer a platform at all, merely a computing vessel that can support a few

different operating systems including *MagiC* (a TOS derivative), *Linux*, *FreeBSD*, and even (gasp!) *TOS*. The operating systems are the real platforms.

Legend has it that the assembly code produced by Atari's Alcyon 'C' compiler was so poorly optimized that it could be directly de-compiled into its original C code. This makes some kind of sense. Compilers are merely a means for translating one language into another. If you translate German into English without accounting for any idiomatic expressions, you get pretty poor English. The same is true with C and assembly. If a particular C construct always gets you the same assembler instructions (whether they're necessary or not), you should be able to rebuild your C code from your assembler code. Following me?

Legend also has it that *KAOS TOS*, a German TOS clone, was created in exactly this way. *MagiC* (formerly *Mag!x*) is a derivative of *KAOS TOS*. So as a result, *MagiC* is extremely TOS compatible. However, it also includes TONS of assembly language optimizations and enhancements, including multitasking capability. You could say that *MagiC* was created with full knowledge of the source code for TOS.

As you already know, after a working set of TOS source code was available, *MagiC* was compiled on the *Macintosh*. Many changes and enhancements were made to integrate it seamlessly into the Mac platform, including adding support for Mac mice, serial ports, clipboard sharing, etc.; what we now know as *MagiCMac*. It's pretty darned nice. You should see *AtariWorks* running under *MagiCMac* at the same

time as *ClarisWorks* for Mac. AtariWorks is SO fast. And of course MagiC Mac also runs *PageStream*, *Calamus SL*, and other popular programs.

The Saga Continues: Gemulator for Laptops

For a long time, Darek Miihocka has been trying to figure out how to make *Gemulator* work on *laptop* and *notebook* PC's. The problem has been that *Gemulator* uses an 8-bit ISA card to house TOS ROMs. Laptop and notebook PC's don't have card slots (generally speaking), so using *Gemulator* with them has not been possible. Enter MagiC.

Darek just a week or two ago figured out how to make MagiC (both versions 2 and 4) work under *Gemulator* – no TOS required. Why? Well, in fact, MagiC is a version of TOS. He and I have been testing this out and it seems to work quite well. What you have there is *Gemulator*, which is highly optimized 68000 emulation software with handlers for Atari OS calls, display routines, etc., plus MagiC – a multitasking, high-powered TOS derivative. Pretty cool all around.

At a computer show in Berlin a few weeks ago, the MagiC guys (*Application Systems Heidelberg*) unveiled *MagiCPC*, a version of MagiC that runs on the PC. What they've created is a software 68000 emulator of their own, along with their own device handlers. It should be very good.

Which product is 'better'? That's really hard to say. Both have their strengths. *Gemulator* for Laptops will be out by the time you read this; *MagiCPC* will be a little longer in coming. *Gemulator* runs on *DOS*, *OS/2*, *Windows 3.1*, *Windows 95*, and *NT*, while *MagiCPC* will only (apparently) run under *Windows 95*. Darek is also planning upcoming *68030/TT emulation* as well: the fastest *Gemulator* ever. The MagiC guys also have a lot of experience with taking MagiC to different hardware environments. I feel quite certain that both companies will have hot products and that ultimately it will be Atari owners (and former Atari owners) who will win.

MagiC is the Platform!

With Magic for Atari, MagiC Mac, MagiC for Atari under *Gemulator*, and *MagiCPC*, it becomes clear that the Atari platform to 'code for' is MagiC, not TOS. *MagiC, running on PC's, Macs and Atari's, will cover 99% of all personal*

computers on the market! That's a bigger 'platform' than Mac, Windows or Unix.

Is it to think this will be a viable platform? That's hard to say. Is anyone going to buy MagiC just so they can run MagiC programs? Quite possibly. One thing is certain however: the TOS platform was looking at certain death. *MagiC is a growing platform.* I have to say that MagiC is very exciting when you think about it as an environment in which you can write a program that runs on Macs, PC's and Atari's. It's a universal development environment. Sounds kinda like Java.

Java-Soon to be Decaffeinated!

You have undoubtedly heard the buzz and fervor surrounding *Java*, the object oriented language developed at *Sun*. They developed it thinking that it would be something good to control toaster ovens. The next thing they knew, it was adopted as the language of choice for developing portable, cross-platform applications on the Internet. It is admittedly kinda cool. You can create a little *applet* that can be downloaded onto a *PC*, *Mac* or *Unix* box and run in real-time. You can also create full blown applications which are also platform independent. You can even write language compilers, like the Java compiler, which was written entirely in Java.

It looks to me like *Netscape* and *Sun* could easily have their butts kicked by *Microsoft*. MS's new *IIS (Internet Information Server)*, a web/gopher/ftp server available by free download, can hook into programs written in *Visual Basic (VB)*. VB includes very powerful hooks into databases created in *Microsoft Access*, and is the most popular application development environment in the world now. Now, at Toad Computers' web site, you can take advantage of this functionality to check to see if your orders have shipped. All you need is your customer number and your order number and you can get an answer back from an Access database within 1-2 seconds. This is all thanks to a 25-line program written in VB and compiled as an OLE automation server, accessible to IIS through OLEISAPI (Object Linking and Embedding Internet Server Application Programming Interface). It is really sweet.

Microsoft claims that they will be making VB Script available soon, too. This will, in theory, allow people to run VB programs *client-side* in much the

same way that Java applets are run client-side. It's unclear whether VB Script will execute on Macs or Unix machines as well; probably it will not. This is where Java is likely to have an advantage. But with some 90% of the world's computers running Windows, it's hard to see how Microsoft won't have some clout anyway.

The real issues here are not *market dominance* or one company's chances for success vs another's. *The web has grown exponentially because it is easy to create web pages and view them on any computer – even an Atari.* Any emerging technologies which constrain either of these two properties (ease and universality), weaken and fragment the web and will prosper far less than the technologies which enhance those properties.

Both Java and Microsoft play into both sides of this equation. Java can be universally viewed, but it's rather difficult to create and comprehend. It has *mindbendingly complex typecasting*. VB however, is not as universal but is very easy to use and create applications. It also has an incredible head start. Which one will(or deserves to) succeed? Who knows. Neither are universal enough to be viewed client-side on the Atari (you can still access server-side Java and VB code as it does nothing more than generate standard HTML). Either way, consider this: *the Web is a paradox*. The more you try to dominate it, the less you succeed. *Microsoft, Netscape and Sun are going to have to give up hopes of owning the Web in order to succeed.* I think that all three companies realize this now, and as a result we're going to see some incredible fireworks as companies compete to be more universal, more open, and give away more than they've ever given away before. It's kind of a religious, spiritual concept. You give 'til it hurts. Maybe then your stock will soar. It hurts my head.

Linux Fun!

During our December Holiday Festival, *Rob Perry* from *System Solutions* in London was here demonstrating MagiC, MagiC Mac, and all the other neat software we import from the UK. He was also demonstrating *Linux 68K*. For those of you who have followed this column for some time, you know that I am one of a large number of people who thinks that Linux is very cool. It is an independently developed *POSIX-compliant* Unix operating system. It was originally developed for the PC about 6 years ago and has progressed

steadily since then, to the point where it is one of the most popular OS platforms out there today. We use it to run our web servers and internet services here. So do a few hundred thousand other people.

As you probably know, a couple of years ago a project was launched to take Linux onto the Atari and the Amiga. This project became Linux 68K. The cool thing about Linux is that once you get a kernel running, you can compile other Linux programs to run too (don't ask me how they compiled the compiler!). So like MagiC or Java (or anything else that can run in more than one hardware environment), Linux is a platform. The only trick is that you do need a **68030** or a **68020** with **PMMU** in order to run Linux, which is a true **multitasking operating system**. As you will recall from *Dave Small's* articles years ago, a PMMU allows you to allocate memory to different virtual machines and guarantees the different machines won't step on each others' toes.

Rob had Linux 68K running on his TT030 with a **Matrix**, high-end graphics card. It looked hot. He was running **X-Windows**, with a background screen of the planet earth. This was generated by a program called 'xearth', which draws a nicely rendered view of the planet to show where the sun is currently hitting it, based on the time of day. It's a kind of 'earth dial'. I thought it looked terrific. So I ran into the next room and compiled it on a Pentium-90 Linux machine. It drew the earth about three times faster than on the TT.

The TT is a fast machine, right? What went wrong? A Pentium 90 running Windows 95 is not terribly fast. I mean it's pretty darned fast, but it could stand to be better. A Pentium 90 running Linux is REALLY fast. Why? **Windows 95 has so much garbage it carries along with it from the DOS days that it simply can't run all that fast**. Linux suffers no such limitation. It can run as fast as the hardware allows. While the Wintel cartel has been conspiring to have the processors keep up with the dog-OS, the speed improvements made in the CPU's have been admirable. With a nice OS like Linux, you can actually see the improvements. A Pentium 90 blows away a 32/16MHz 68030. **Imagine if you could run native TOS code on a Pentium 166. It would be really fast.**

Sitting down at a P90 Windows 95 machine and a TT030, I think most people would be tempted to say that they felt like they were about the same speed machine. Why? TOS is such a nice, smooth OS that it feels fast. Either way,

you have to go with what works for you, and Linux 68K is one more way to get more functionality out of your existing hardware. And it's a bit faster than TOS.

The Ethernet Story

In my first story for the new Current Notes, I told you about my desire for an **Ethernet** card for the TT030 (or Falcon). The story produced some responses, but I have to confess that even today **my TT030 sits without an Internet connection**. It's a real shame too, because I understand there are Linux 68K drivers for some of the ethernet cards out there and that I might actually be able to run a web site and ftp site on a TT030. All I appear to be lacking is the hardware.

There seem to be three basic options, all of which are difficult to execute. One is to get a **Riebl Card**. They're no longer made and those that are out there are tightly held. There is apparently another card from **BioNet/PAM Software** and these also are either \$2000 or hard to find (what's the difference?). Yet another option would be to modify an old **AMD/SMC PC Net** card to work on the Atari. These are also impossible to find now, plus the modification is far from a one hour project. Another option is to use a **D-Link Parallel Port** ethernet adapter, but I hear these are slow. To my knowledge, the Riebl card is the only card for which there are Linux drivers.

If anybody can contradict or contribute to the information I've presented here (it's definitely the short version), please send e-mail to **DAVE@TOAD.NET**. Since we have the T-1 line here, it seems a shame not to try to hook at least one Atari here directly to the net. If you can find me a card, we'll name the host (you know, each machine has a hostname, johndoe.toad.net) after you. It would be a great way to gain some fame in the Atari world!!

Other Projects

This week we got word that we would be handling the new **Hades** computer systems in North America. These are produced by **Medusa Computer Systems in Switzerland** and the Hades is (apropos its name) HOT! You can run a 68060 at up to 66MHz in the machine, and basic systems start at \$2499.

This past week we also received our first shipment of C-Lab Falcon MK-X machines. They are quite stylish. It's a basic black box with room for hard disks

(or removable disks, like the **SyQuest 135/270/SyJet 1GB** or **Iomega ZIP/Jaz**) and even an **FDI interface** inside. It has the detachable keyboard, etc. Systems are starting at about \$1149.

Going to duplication tomorrow is the **Bird of Prey CD**; 650MB of software for the Falcon030. It was produced by **Matt Norcross** and **Scott McConnell** at **Floating Fish Studios**. You probably know Matt and Scott from **Genie** and other on-line forums. They have combed through EVERY imaginable source of Falcon files, and have created a CD-ROM that is full of meat and avoids duplication of the other Falcon-only CD's: **Transmission** (from Germany) and **All Things Falcon**. Bird of Prey will sell for \$29.95 and will be available at Atari outlets around the world by June 1st.

Other recent CD projects include the **Atari Compendium** CD and the **Gemulator Gold** CD. The Compendium CD includes the entire Compendium book from **Scott Sanders**, plus several hundred megabytes of software, with a focus on programming (Ed.Note: look for the Compendium CD review in this issue). The Gemulator Gold CD includes a ton of PD software plus all versions of Gemulator (for DOS, Windows 3.1, Windows 95), plus **PC XFormer 3.5**, which includes support for the PC XFormer cable. With the PC XFormer cable, you can attach eight bit disk drives directly to the parallel port of your PC. The Gemulator Gold CD sells for \$49.95 alone, or it can be purchased at a discount with the Gemulator card or if you are upgrading.

If you have a CD you'd like to have published, let me know. We're getting pretty good at it here. We can even create music CD's if you send a hard disk with 16-bit 44.1KHz sample files.

All For Now

It's good to be back writing in Current Notes again. If you have something you'd like to see me cover, please send e-mail to: **DAVE@TOAD.NET**. I'll see you next time!

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TOS, GEM and other good things . . .

163264

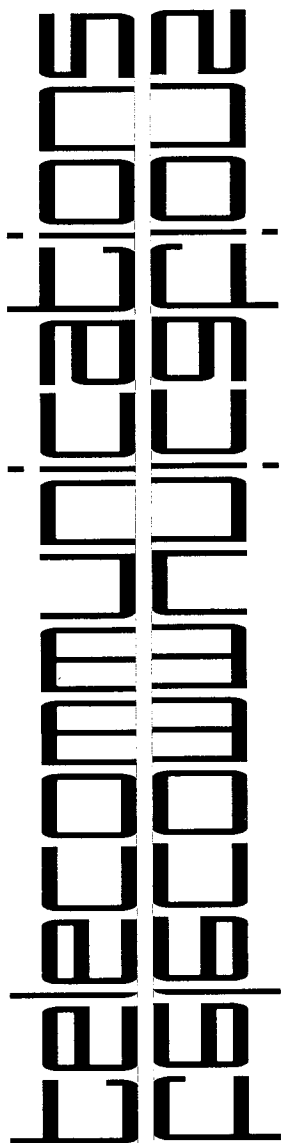
COMPUTE

jaguar
lynx

eric march

GAME

It's not enough to go fast - it's got to be accomplished at a reasonable price, too!



In the last issue, I wrote about the Rogers Wave Cable Internet service. It promises to provide a fast connection to the Internet at a very affordable price, while still being as easy to use as a conventional telephone connection. In this issue, I will explore an alternative method to getting connected to the Internet: ISDN.

ISDN (Integrated Services Digital Network), put simply, is just a phone line; the same as the standard twisted-pair line that everyone has in their home. The difference is that ISDN is completely digital, and therefore faster and cleaner. Now, I don't wish to compare ISDN to the upcoming Wave service or Cable Internet connections in

general. But with Cable services shortly on the horizon, such comparisons are inevitable, and also provide a good frame of reference with which to weigh the pros and cons of each.

Let's examine the pros of ISDN. Being completely digital, you are unlikely to experience line noise or other irritations that are sometimes present with common copper wire phone lines and coaxial Cable connections. This will provide a crystal clear connection wherever you're calling. Next are the ISDN modems themselves, which come in two flavors: One and Two channel. One channel ISDN will allow you to achieve a maximum throughput of 64 Kilobytes (K) per second. Two channel adds another 64K, giving you a maximum of 128K/sec maximum throughput. In this capacity ISDN can outperform the 64K of the Wave service as long as you're willing to foot the extra expense of buying a two channel ISDN modem. Of course this will also mean you'll have to order a second ISDN line to supply the modem with its second channel, but this does provide double the speed; something that can not be done with conventional modems.

The cons create a situation with some tough decisions to be made. In fact, were there no such thing as Cable Internet this list would be rather short. New cable

technology however, is beginning to show that ISDN is going to have a run for its money. First there is the cost. A single ISDN line will run you approximately \$50Cdn/\$70US per month (more if you get a two channel line). While two channels provide a maximum throughput of 128K/sec, the added expense may not be worthwhile for the casual, home user. Next is what is called 'overhead'. Overhead is the amount of bandwidth that an Internet Service Provider (ISP) must use for administrative purposes. Most of the time this costs you about 4K per second, per channel, of bandwidth, lowering your effective maximum throughput to 60K/sec on a one channel ISDN connection, and 120K/sec on a two channel connection. Some ISPs however, have an and overhead as much as 16K per channel, lowering one and two channel throughputs to 48K/sec and 96K/sec respectively. Fortunately, it is relatively uncommon to find ISPs with overhead this large.

Another disadvantage is that while Bell Canada (for example) will provide you with an ISDN modem and act as your ISP, some phone companies in the U.S. only offer the ISDN connections or the modem (but not both). In cases such as this, it is necessary to buy your own ISDN modem, and/or subscribe to a third party Internet service supporting ISDN dialup lines. ISDN modems are still rather costly, starting at around \$300Cdn/\$225US for a one channel modem. Services are usually reasonable however, some as low as \$33 Cdn for unlimited time and access (Ed.Note: U.S. service rates seem to be somewhat higher - even after the dollar conversion - but they are coming down as the inevitable high U.S. volume begins to drive down rates).

Last on the list of cons (and Wave suffers from this too), is the fact that your bandwidth must be shared with others. Effective throughput will always suffer as a consequence. It is possible to get a dedicated ISDN line installed, so that the entire bandwidth is yours to do with as you please, but the cost is prohibitively expensive, upwards of \$350 and more per month.

In the final analysis, we can see that Cable technology will provide a very inexpensive means to connect quickly and easily to the Internet. And while ISDN can be made faster than Rogers' (Wave Cable) initial speeds of 64K per second, the overall cost of getting (ISDN) connected to the Internet is very high even if, in the end, you own the equipment, rather than rent it. Of course, cable services are still in their infancy and not yet widely available. For those in areas that do not have a Cable

ISP, ISDN is a good, if expensive, alternative. But with Cable services growing as they are, it might be wiser to keep your modem connection to the Internet until a cable provider shows up. The cost and effort put into setting yourself up with ISDN could easily pay for more than a year of a comparable cable service. On the other hand, even a dedicated ISDN connection to an ISP is much cheaper than getting your own T1 trunk along with an Ascend 50 router and all of the other things you'd need to connect yourself to the Internet directly.

For business use on the other hand, a cable ISP would be impractical; since the Wave service caters more to the home user at the moment, a dedicated 64K line is not an option. A dedicated ISDN service is a terrific option however, and it makes more sense for a business to have its own ISDN line. Additionally, ISDN lines can be used as voice lines too. In fact, one 64K ISDN line can be used for as many as 8 phone lines (and more, depending on the network setup). At the time of this writing, I am not aware of a similar option for cable connections.

Technology, pressing ever

forward as it does, is improving, and Internet access is getting faster, cheaper, and better. It is becoming easier than ever to get connected, but the method is up to you!

My ? is better than YOUR ?

A person was bragging the other day day on Usenet (or IRC, or someplace like that), about how he'd achieved 3,000cps while downloading a binary from a BBS, using a 14.4K modem. This is (rarely) achievable with text, not binaries, or with a null modem connection, but NOT with a 14.4K modem on a conventional phone line, talking to a BBS. If you're getting 1,600 cps, you're doing great.

Modem? What Modem? (encore)

They're not all created equal, that's for sure. They're also labeled with confusing numbers: 9600, 14.4K, 28.8K, and so on. The best deal you'll find these days is on 14.4K fax/modems. The 28.8K jobs are still very pricey.

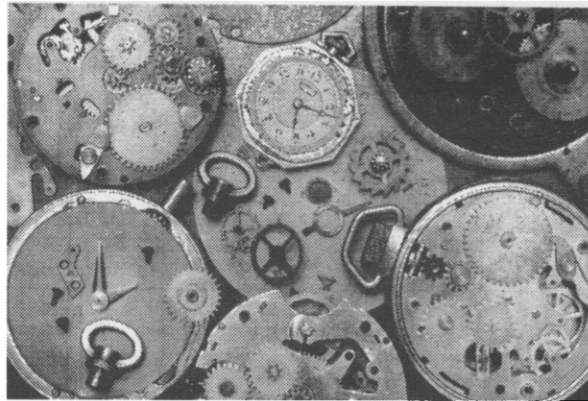
Brand name units made by U.S. Robotics, Supra, Hayes, GVC and quite a few others can be connected easily to your Atari, Amiga, PC or Mac. These little devils can also be purchased for as little as \$50, at all of the major computer stores. They're also being sold (increasingly) at places such as Wal Mart, Sears, Eaton's, K-Mart and other department store chains.

There are also a few shady deals out there. Before purchasing any fax/modem anywhere, have the store clerk open up the box and inspect the warranty card. If the unit is being purchased in North America the card should have a U.S. or Canadian address. If it doesn't, don't bother wasting your hard earned money because it's likely that the 'warranty' is unusable or just, plain fraudulent.

It's not a bad idea to check out any North American addresses too. A \$4 or \$5 phone call to verify the serial number might save you \$50 or \$60 later on, when you have to replace a phony piece of junk that gave out on you. It's possible to find this type of garbage in the most reputable stores too, so beware!

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Denesh (Danny)
Bhabuta**

this month . . . CoMa, Pysgham, GDOS Check!

The CyberSTrider Files

It's customary for me to blab a little before launching into the reviews and this month is no different. I am not very happy with happenings in the Atari market place: the Atari/JTS merger, Compo UK and Atari World coming to an end, a couple of small German companies abandoning the platform. What next? I am also sorry to inform you that I will have left HENSA by the time you read this, to start a new job elsewhere.

Although I envisage a slowdown in commercial product releases, the shareware scene will carry on for a long while. In fact I am currently aware of one particular commercial program being developed as shareware right now! Watch this space for more details. Without shareware registrations this section of the Atari platform will die and I must admit I have lately seen a rise in registrations which is very, very good. We users are investing in the future of our platform by paying shareware fees. We all deserve a pat on the back for that.

Leaving HENSA does not mean I am abandoning the Atari platform; far from it! My shareware scheme continues, with many more programs in the pipeline, as is the case with the other support sites around the world.

CoMa v3.20. Shareware by Siegfried Hartmann. All AtariS

CoMa, or Communication Manager is a commercial quality fax program. It is fully multitasking friendly, sports a GEM interface and can also run as an accessory. CoMa works with fax-modems which support Class 2 and 2.0 and is extremely fast at coding and decoding fax pages. You can view incoming and outgoing faxes: incoming ones are displayed line by line during transmission. Features such as auto-receive, print, fax-number directory and fax management are also implemented.

You can create simple faxes using the internal editor. Header and footer images can be imported. More complicated faxes can be created using Calamus or any program which supports QFax drivers. I did miss the simple DTP features for creating faxes found in other fax programs.

CoMa turns your Atari into a powerful answering machine letting you record up to seven different messages. You can also

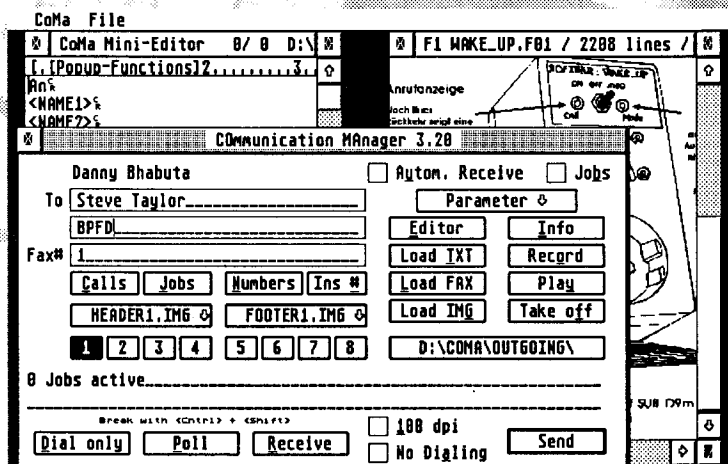
set up the program to act as a voice-mail box where messages are stored for people to listen to upon entering their personal pin number. You will need a special voice-mail compatible modem to use this.

Finally, CoMa lets you set up a mini BBS. You can log in to your computer from somewhere like your office. You may also create a password for friends or associates, providing access to certain data!

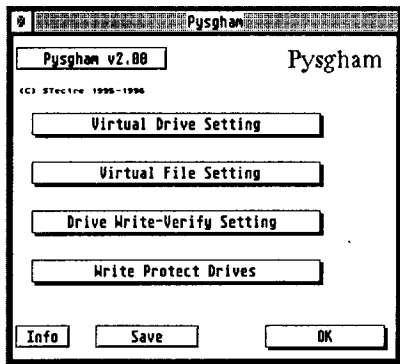
CoMa is impressive to say the least. It competes well against the commercial offerings. The shareware fees is a bit high at £45 for just the fax part of the program going up to £110 for all three parts. But, compare it to similar priced commercial ones and CoMa wins hands down. Score:7/10

Pysgham v2.00. Shareware by Jabran Akhtar. All AtariS

Pysgham creates virtual drives from folders, which can then be seen by TOS or any application as a real drive. It enables you to access deeply nested folders and files quickly and easily. For example if you keep all clipart in the path H:\IMAGES\CLIPART\BITMAP\IMG\ then you may assign it the virtual drive M: so that all the image files will appear in the root directory of drive M. The benefits are



CoMa is a full communications suite in one, detailed package.

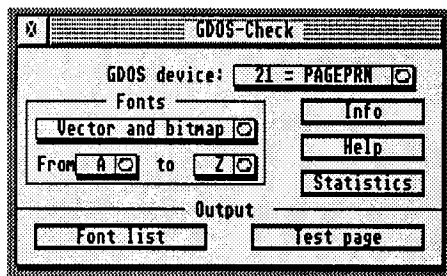


Set up virtual drives and files using Pysgham's simple configuration program.

a faster route to your often used files and a less cluttered desktop. You can install up to eight different virtual drives on your hard disk. Similarly, virtual files can be set up where you only need to enter two characters corresponding to the original. Additionally, write protect and verify for each drive, virtual drive and partition, can be set individually. Pysgham is postcardware. Send the author a postcard if you like the program! Score:6/10

GDOS-Check v2.06. Freeware by Christoph Bartholme. All Ataris

This is a freeware utility to test the GDOS installation on your ST. It can create a test



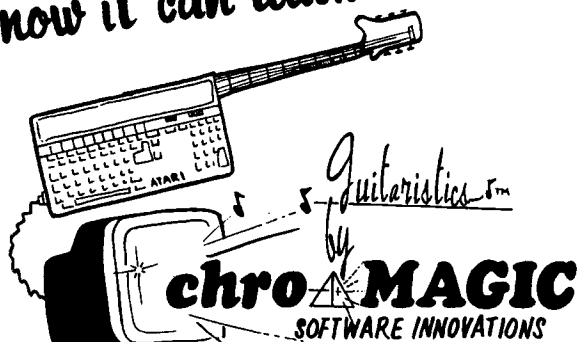
A GDOS-check a-day keeps the font monster away! (Ed. Note: groan . . . please Danny - no more jokes . . .)

page which shows the maximum printable area your printer can manage. In addition GDOS-Check lists all installed fonts in all sizes. The program was written mainly for Idealist but it is pretty useful utility to have on your hard disk if you need to check your GDOS setup. Score:8/10

Denesh may be contacted via the magazine or directly at: dbhabuta@cix.compulink.co.uk -or- <http://www2.wildnet.co.uk/~dbhabuta/>

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DRAW-EDIT

Lianne continues her series on Art & Drawing programs. This issue . . . Invision Elite II (color)!

One of the things that I wanted to get at ACE '95 but didn't, was Invision Elite, the Bitmap drawing program from DMC Publishing (now MGI Software Corporation!), and Power Thought Software. I am a great fan of Calamus 1.09n, Calamus SL, and Outline Art, the finest DTP and Vector drawing programs around. So when DMC was showing off the new Colour(!) version of their long running and popular Invision Elite, it immediately jumped to the top of my shopping list.

Invision Elite will display up to seven images, and scrolling through them is possible by hitting 'O' on the numeric key pad. The key board offers you many shortcuts. Pressing the 'Help' key for example, will bring up a graphic showing the position of all the shortcuts! The



colour version I used for this review will display up to 256 colours. As yet, True Colour is not supported.

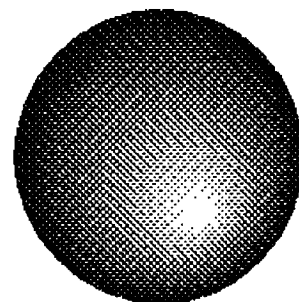
Invision Elite treats some of the usual drawing features quite a bit differently. Where most programs have separate settings for Brush Size, Spray Can (or Stipple) Size and Line Thickness, Invision Elite uses the 'Brush' icon to determine the size of the 'pen' you are using. That's a nice idea - keeping the choice to one area.

If you have ever used 'Quill', you will appreciate the new feature for Invision Elite called 'Natural Brush'. Quite simply, the program translates your movements with the mouse into a more controlled motion. The typical and very jerky, 'steppy' looking freehand curves, can suddenly be made much smoother and far more precise. It's great for those of us with less than perfect mouse control.



Drawing shapes with Invision Elite is as simple as with other programs, the only difference being that Invision does not draw 3D shapes, like cubes or cylinders; it's a drawback for the program considering that many users need a program like this to do as much as possible.

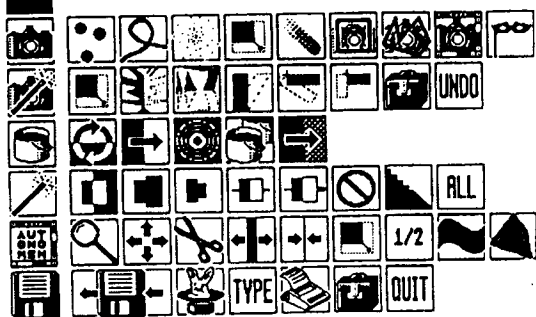
Fill Patterns on the other hand, are treated in a manner much more suited to a top quality drawing package. Gone are the obligatory 'hearts' and 'balls' and 'stripes' and 'little Atari symbols'. Anyone using a drawing program for professional applications will probably agree that these patterns are basically useless (rastering them in Calamus SL notwithstanding; after all, Calamus is supplied with exactly the same fills!). What Invision Elite has concentrated on are variant shades of gray, in three different styles. This is perfect for texturing your pictures, and giving them a livelier look. Individual Fills are chosen by clicking on the Fill icon, and moving the mouse up or down. This action scrolls through the many patterns available. You can customize a fill pattern (and create the classic 'Fuji' symbol, if you really can't do without it!), or you can Clip a portion of the picture you are working on and use



Examples of Invision Elite II's wonderful range of effects. There are a lot of creative possibilities . . .



Invisions Elite II's menus - lots of choice!



that. Clipping is an extremely creative feature, and one that is also found in Calamus SL. It's a great way to create custom background Fills. These 'Gray Shades' can also now be set in any colour you wish, with this latest version of Invision Elite.

And what would a drawing program be without a good Block function? Not much fun, that's for sure! Invision Elite does not fail. With the usual thin, thicken, invert, mirror, skew, and rotate, comes 'paint' or 'stipple', using the block as a brush. There is even a gradient block function which is unique. Pick a start and end point for your block, and the program will paste it over and over, drawing the block lighter and lighter (or darker and darker) as it goes.

As with most drawing programs, Invision Elite has a text function; unfortunately, not much of one. I looked for some sort of scalable font, but found only four text styles. I have no idea how to scale them, and even if it's possible, the program does not have the ability to let you type and then place the text where you want it. Wherever the cursor is placed before you go into text mode is where the

text begins, and if you don't like it, too bad. You can move only one letter at a time, and the tutorial wants me to believe that I can somehow accurately place the cursor to continue typing if I run out of room on the page. I want proper scalable fonts! Cheap little freeware paint programs do a better job - but then of course, what would I need with a Desk Top Publishing Program? The answer is that none of these art/drawing programs

can come close to replacing the fabulous text functions in Calamus 109n, Calamus SL or Calamus 95; draw your picture or effect, save it, import it in Calamus, then do your fancy text work there. Invision Elite does have extended Text Configurations in the 'Settings' drop down menu, kerning, and some text styles, but I guess the programmers assumed, correctly, that text functions are not absolutely necessary in a drawing program, and their efforts were better used elsewhere...

... such as in Graduated Effects! How do you make a great background for just about anything? Graduated fills! Invision Elite does it with style. Pick an angle, any angle, any width and presto! A background graphic anyone would be proud of. Make a circle, pick the point to highlight, and voila! The perfect graduated sphere! Now mix in some of the available colours (depending on the resolution you are working in), use different fill patterns to 'graduate', and you can do some really spectacular work!

Invision Elite has two things that I have not seen in any other drawing program: the ability to either add, or remove space from the picture, and Instant Access Panning. Since the size of the drawing area is configurable from the get-go, Invision allows for the need for additional space later on. On the other hand, you may find that you didn't use half the space you set out with, and in order to save memory, a little dead-air deletion might be necessary. Invision Elite allows you to

scroll through a large picture using a technique they call Instant Access Panning. Basically, holding down the mouse button and moving the mouse around, allows you to scroll through your work without having to meddle with the usual scroll bars. I don't know that anyone else thought these little pieces of programming were necessary, but I can think of many cases where I would have used them, if they had been available to me in other drawing programs.

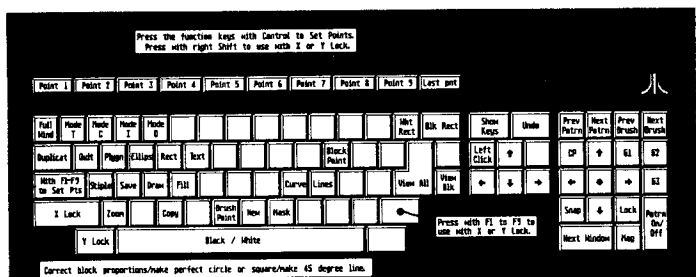
Invision Elite saves and loads many file formats, including IFF, GIF, PCX and BMP. Even Calamus CVG files can be loaded into Invision Elite. Printer drivers are a little on the slim side however, as only four are supported: Atari laser, HP deskjet, HP deskjet colour, and Epson FX/LQ. A little limiting for someone with a Canon Bubble Jet colour printer, although the Epson driver is adequate for black and white. But I never print directly out of my drawing programs anyway, so it matters little to me.

The greatest difference with this version of Invision Elite from previous versions is the fact that it now uses colour. Two wonderful additions are the 'Isolate' and 'Replace' colour functions. There is nothing more frustrating than changing your mind about a colour and having to alter the picture, pixel by pixel. The colour change is easily accomplished with these functions and a couple of mouse clicks; red is quickly changed to green with very little effort. Remapping palettes and Dithering images to evenly spread out a palette, is also easily done with Invision Elite.

All in all, Invision Elite v2 is a very good package. It isn't the ultimate drawing program I am still looking for, but many of the features are very impressive. I am especially enamoured with the gradient features; they're very versatile and very easy to manipulate. Everyone should at the very least see the program's opening and closing animations. Great fun!

The boys at MGI will be happy to outfit you with the latest version of Invision Elite. According to the last DMC News Bulletin (late '95), Invision Elite v2 (color), can be had for the paltry sum of \$70 Cdn., quite a bargain for this package. The upgrade price, for those of you who own older versions, is only \$35 Cdn, and you need the serial number of your old version. Call MGI Software Corporation at (+1) 905 764-7000, and talk to Shawn Wheatcroft. You can also inquire via e-mail to: shawnw@mgiisof.com.

Next issue I'm going to tackle the Vector Graphic program, Outline Art 3! ▲



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Scott Chilcote conducts an interesting odyssey through the wilderness we call . . .

**Everything
you always
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know!**

**MiNT
and**

**Part two of
a series . . .**

MULTITOS

THE UNOFFICIAL ADVANCED USER'S GUIDE TO MULTITOS PART II

by Scott Chilcote

Edited by Eric March

Hello again, folks!

**Let's get into customizing
MiNT, and getting it to
multitask for our particular
requirements.**

CONFIGURING MiNT

The primary means of configuring MiNT involves setting up a file called MINT.CNF. On the standard Falcon hard disk configuration, this file is found in C:\MULTITOS. When MiNT is started, it is actually designed to check for this file in three different locations:

- 1. If MiNT was run from an AUTO folder, the root directory otherwise, the directory where MiNT was started
- 2. If it isn't there, \MINT on the boot drive
- 3. If it isn't there, \MULTITOS on the boot drive

MINT.CNF, if it exists, is read by MiNT during its initialization. The contents of the file are read and used to determine many important aspects of MiNT's performance.

The configuration file is in plain ASCII format and can be edited with a standard text editor (Ed. Note: check out the Text Editor review in this issue). Modifying the configuration file is a good way to learn some of the special features of MiNT.

Some of the parameters in this file, if given poor values, can degrade or snarl system performance, so care should be taken here.

I recommend saving a copy of the original MINT.CNF file in a different directory, and using a boot utility such as XBOOT or SUPERBOOT to enable or disable MiNT at bootup. This makes it easy to decide whether or not MINT.PRg (or MINTNP.PRg) should be run, and allows us to restore a working MINT.CNF file if an experiment goes awry.

Figure 1 shows an example MINT.CNF file. All lines that begin with a '#' character are comments. These are messages intended for anyone who might read the file and do not affect MiNT. This file has several explanatory comments.

The first actual instruction in the file is the line containing:

DEBUG_LEVEL=0

As the comment above this line says, this specifies the amount of debug information that MiNT will provide while it's running. Setting this value to 0 is necessary during normal MiNT operation, since otherwise there would be distracting text debug messages constantly scrolling up the screen. These messages have their uses though, for those who want to learn the details of MiNT operation. More detail on debug messages will be provided later for those who are interested.

SLICES=1

This is an important parameter that directly affects the multitasking ability of MiNT.

A preemptive multitasking operating system simulates having several programs running at once by dividing the processor's time into fractions of a second, and executing each active process in sequence for that period. These tiny

amounts of time are called 'slices'. A MiNT time slice lasts for 20 milliseconds, or one fiftieth of a second. In this much time, a 16 MHz Falcon 030 completes three hundred and twenty thousand clock cycles! While most of the 68030's instructions take multiple clock cycles to complete, a lot can happen in a single time slice.

The default number of time slices per process in MiNT is 2. Increasing this number will allow programs to accomplish more before MiNT moves on to the next process, but may also slow down mouse and keyboard response. This is because the processor will be able to check for mouse and keyboard requests less often. Setting this value to 1 will cause MiNT to spend less time on each process before executing the next. This will improve keyboard and mouse response, at the cost of making the overall performance of the system slower. Why? Because each time MiNT stops executing a process and moves to the next, it has to save the state of the process, and restore the next one. This is called a 'Context Switch', and adds a bit more overhead to the processor's work. I still recommend that a dedicated MiNT user try at least 1, 2, and 3 for SLICES, and see which one they like best.

BIOSBUF=Y

MiNT contains some optimizations over GEMDOS in order to improve the speed and efficiency of the system's communication with devices, such as the monitor and keyboard. These optimizations are turned on by default, when MiNT is running. Some programs may not run with these optimizations enabled, because they use nonstandard methods of communicating with system devices. If you have a program that won't run properly under MiNT, changing this

Some Useful Terms

Console: The primary display used for system-level output on a Unix-like operating system.

Context Switch: Tasks that a multitasking operating system must perform when it temporarily stops executing one process and begins executing another. In particular, CPU register contents must be swapped.

Debug Message: A text string displayed by MiNT to assist its developers in finding bugs or monitoring performance.

Device Driver: A file that contains information that the operating system needs in order to communicate with a specific device, such as a printer or the display.

Environment (specific to programming): The user interface and configuration a developer uses to interact with a computer. In a Unix-like

system, this most often pertains to a shell program and its associated variable settings.

Interrupt: A type of signal used to change the current instructions being performed by a CPU, and cause a new set of instructions (at a different location in memory) to be executed. After interruption, the initial programming is continued.

Process: A program that has been loaded into system RAM for execution.

Program: A file containing machine instructions and data. On a GEMDOS file system, a program has the extension PRG, APP, GTP, TOS, or TTP.

Shell: On a Unix-style operating system, a shell program is the interface between the user and the operating system. The shell accepts user commands, calls the command programs that perform tasks, and displays the results to the user (among other things).

setting from 'Y' to 'N' may allow the program to be used, at the cost of slowing things down a little.

MAXMEM=8192

This handy variable allows us to put a 'ceiling' on how much memory any program can request under MiNT. I've found this variable to be very useful in taming my C Language compiler, GCC, while I'm compiling a large program. Even with 14 MB in my Falcon, I discovered a while ago that when I'm compiling a large program (a task that can take several minutes), GCC had tied up all of the remaining memory. This meant that even with all of this RAM I couldn't run another program until GCC finished. Setting MAXMEM to a lower (but still generous) value made it possible to open another shell window, and continue working during the compile.

If you've ever wondered why some programs would not let you run anything else (even under a multitasking OS such as MiNT), you may have needed to adjust this variable. What if you have less RAM? It's still worth trying. If you have 4 MB of RAM, set MAXMEM to be 3072 and see what happens. It means you can run a smaller program, desk accessory, or whatever, while something else goes on in the background. If a large application that used to work now causes ALERT to say "Out of Memory!," try increasing the MAXMEM value by 128 until the message

stops appearing.

setenv MANPATH=/dev/j/manual

This command is only of interest to users who want MiNT to provide a Unix-like environment for software development. Unix-style programs use variables defined in the current Shell (Environment), to configure various aspects of their behavior. One commonly used variable is PATH, which tells the Shell (and other programs) where to look for command programs. 'setenv' is a contraction of SET Environmental Variable. In this case, the variable tells the helpful manual displaying program, 'MAN', where to find its data files.

The last command in this example file is:

GEM=C:\MULTITOS\GEM.SYS

The GEM command tells MiNT the name of a program that we want to run at boot time. After MiNT processes the previous lines, it reads this line, which tells MiNT to find and run a GEM program called GEM.SYS. When MiNT runs this program, it causes a modified version of the GEM desktop to appear while MiNT runs in the background.

The interesting thing about this command is that it means that we don't necessarily have to use GEM as our user environment, while running MiNT. It doesn't even have to be a GEM program; an alternate command for non-GEM programs has the form:

INIT=D:\BIN\GULAM.PRG

If your MINT.CNF file does not contain a GEM= or MINT= line, MiNT will boot to a rather useless blank screen. I have only used the default GEM.SYS file with MiNT, even when developing programs. I have read on Usenet that some developers use GULAM instead, which is a text-based command line shell with some GEM characteristics, such as mouse operation. There are some worthwhile options for an environment other than GEM when running MiNT. A future installment in this series will describe some possibilities.

Besides INIT=, there are a couple of other things you can add to a MINT.CNF file that aren't shown in the example in Figure 1. One of them is:

CON=U:\DEV\CONSOLE

This is another option mainly of interest to software developers. CON= lets you choose a device (or file) where any messages sent to the system 'console' will go. Console messages are typically debug or error/warning type messages that need to be brought to the user's attention. If the user is doing something and these messages must be noticed, they can be sent to any device (such as printer or modem) or file on the system. U:\DEV\CONSOLE is the default, which is the computer screen itself.

PRN=U:\DEV\CENTR

This parameter lets you define which

device will be used as the system printer. The default, U:\DEV\CENTR, is the printer (or Centronics parallel) port on the back of your computer. If you have a serial printer, you could use this command to specify the SERIAL port device driver instead.

alias x: u:\proc

This command allows you to define a new icon to use for an existing folder anywhere on your system. Given the example above, you could create a drive icon for X:\, which would display all system processes when opened.

echo "Welcome to MiNT Version 1.12"

The command 'echo' may be used to print a message to the display. If you run GEM from MiNT however, the message will be erased quickly by the GEM desktop.

There are a few more commands besides these, but they are mainly useful to system software developers. The 'Appendix C' file in the mnt112d.zoo archive contains complete information on all of the possibilities.

Let's put initialization files aside for a moment and look at a simple feature of MultiTOS.

THE MULTITOS CONFIG CPX

Whoever had to write this CPX program must have had one of the easiest tasks at Atari. This CPX has just two sets of buttons: one for enabling or disabling MiNT itself, the other for turning memory protection on and off. A little experimentation shows that the first button simply changes the name of the MINT program in our AUTO folder to end with PRG or PRX. Changing the program to end with PRX will keep TOS from recognizing MiNT as an executable program, which means it will be skipped over at boot time.

The second set of buttons change the first part of the program's name to be either MINT or MINTNP. When MINT is run, it finds out what its name is before deciding whether to use the memory protection feature built into the Motorola 68030 and 68040 CPUs. This begs the question:

SO WHAT IS MEMORY PROTECTION?

Memory protection keeps programs from accessing any part of memory not assigned to them by the operating system.

This is a very important feature in multitasking operating systems because it keeps one misbehaving program from affecting other programs in memory or the operating system itself. This feature makes MiNT inherently more reliable than GEMDOS.

Why is it hardware memory protection? Because there are registers in the Motorola 68030 (and 68040) CPU that keep track of the RAM addresses that contain the currently running program. If the program should for any reason try to read or write outside these boundaries, the CPU cancels the attempt and uses a signal called an interrupt to tell MiNT that a memory segment error occurred. In most cases, the offending program can be cancelled without affecting any other programs in memory.

Well, if memory protection is so great, why are we able to switch it off in MiNT? Simply put, some programs intentionally overwrite areas in memory they do not own. In a perfect system this would never be required, but there are times when it must be done. For example, it is a good idea to overwrite the TOS routine that handles the serial port with code that works better for high-speed modems. Programs like NVDI and Warp 9 replace many of the system's VDI routines with improved versions.

MINT.PRГ would notice these 'overlays' and keep the programs from affecting RAM areas that they hadn't been assigned. For this reason, unless some untested code is being debugged, it may help to keep memory protection turned off. If possible though, it's always a good idea to use memory protection. Note that if your system uses a 68000 or 68020, MINTNP.PRГ is the only version that will work. The CPU must have built-in memory protection for MINT.PRГ to run.

Well, we haven't completely covered the ways of configuring MultiTOS, but this is a good place to stop for a breather. In the next part of the series, we'll customize and improve GEM's behavior under MiNT (among other things). Until then, keep those Ataris working for a living and have some fun! If you have any questions, why not contact me via e-mail at: scott@nando.net!▲

Figure 1:
An example of
a MINT.CNF
text file.
Everything in
MiNT is
configurable!

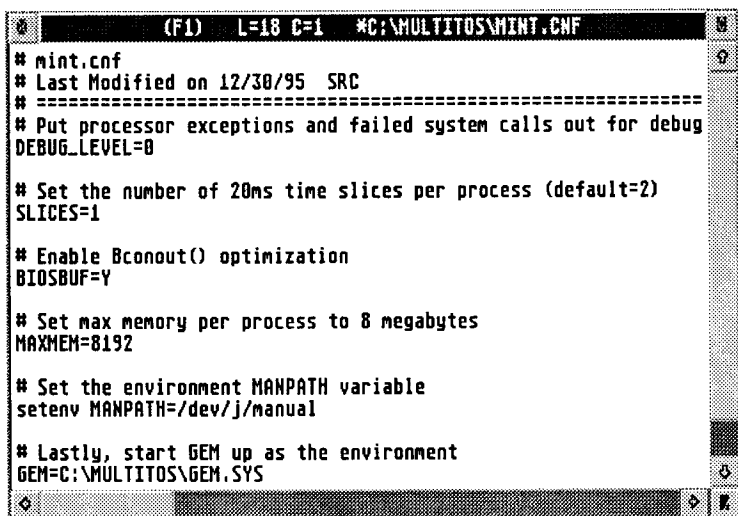
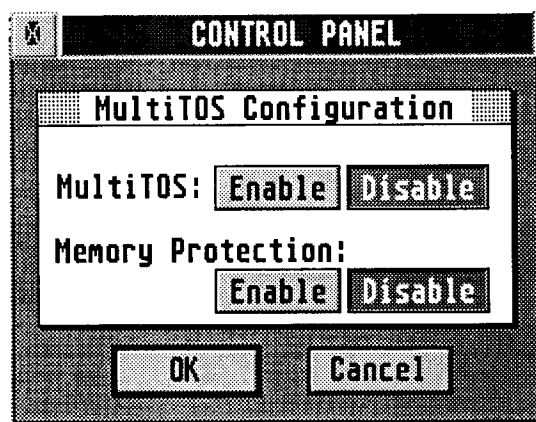


FIGURE 2: The MultiTOS CPX. This guy's job is surprisingly easy. MiNT is very stable, as long as it's configured properly!



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STB554 DELUXE PAINT
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STA323 DINO DUDES FALCON
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STD524 DISCOVERY (SIM CITY +++)
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STB889 DRAGONS LAIR ESCAPE SCAS
STB654 DRAGONS LAIR II
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STD821 GFA DRAFT
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STB862 HARD NOVA
STB855 HERO QUEST
STB477 HERO'S QUEST
STD610 HI-TECH MAIL PRO
STB697 HIGH ENERGY
STD373 HISOFT BASIC PROF.
STD575 HOME CASINO
STA057 HOOK
STA006 HOT RUBBER
STB476 HOYLE BOOK OF GAMES 1
STB544 HOYLE BOOK OF GAMES 2
STB837 HYPERLINK VER 2.0
STB644 HYPERPAINT 2
STA243 HYPERPAINT/MUSIC/BASIC
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STA101 INDIANA JONES/ATLANTIS
STA034 INDY HEAT (DSDD ONLY)
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STD437 INFORMER, THE DATABASE
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STA220 ISHAR 2 FALCON
STB356 JACK NICKLAUS GOLF
STD113 JET
STB491 KIDPUBLISHER PROFESSIONAL
STA244 KIDS RULE OK (3 PACK)JED++
STA152 KILLERBALL
STD121 KINGS QUEST III
STB338 KNIFE ST
STD757 KNIGHTMARE
STA001 KNIGHTS OF THE SKY
STA047 LAST NINJA 3
STA030 LEANDER
STD032 LEATHER GODDESS PHOBOS
STA020 LEGEND
STA198 LEGENDS OF VALOUR
STD143 LEISURE SUIT LARRY
STD144 LEISURE SUIT LARRY II
STB740 LEMMINGS
STA174 LEMMINGS II TRIBES
STA100 LETHAL WEAPON
STB517 LOOM
STB727 LOOFZ
STA056 LOTUS 3 ULTIMATE CHAL
STD377 LUDWIG

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STA160 MCDONALDLAND
STD850 MICHRTON UTILITIES PLUS
STB924 MICROPROSE GOLF
STA276 MIDPLAY
STB351 MIDWINTER
STB693 MIG 29 FULCRUM
STB877 MIG 29 SUPER FULCRUM
STB878 MOS DISK UTILITIES
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STD186 PLATOON
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STA003 POPULOUS 2 (1 MEG VERS)
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STB945 REALMS
STA305 RECIPE BOX(MEALS MANAGER
STB130 RED STORM RISING
STD511 REVOLVER PROGRAM SWITCHE
STB579 RICK DANGEROUS II
STA117 RISKY WOODS
STB805 ROADWAR BONUS EDITION
STA270 ROBINSONS REQUIEM
STB637 ROBOCOP 2
STA002 ROBOCOP 3
STB407 SCRIPT
STD710 SHADOWGATE

STA115 SHADOWWORLDS
STA126 SHOPPING BASKET AGES 6-8
STA065 SHUTTLE
STB470 SIM CITY (DOUBLE SIDED)
STA154 SLEEPWALKER (STE ONLY!)
STB643 SLICCTOP SUPER DESKTOP
STB914 SMASH TV NO ON MEGASTE
STA167 SPACE 1889
STD764 SPACE ACE
STA039 SPACE CRUSADE
STD241 SPACE QUEST III
STD803 SPECTRUM 512
STA186 SPEEDO GDOS ATARI
STB550 SPELLBOUND
STB848 SPIRIT OF EXCALIBUR
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STA242 ST WORD/DATA/CALC SSDISK
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STD833 STOS MAESTRO
STB896 STRIKE FLEET
STD570 STRIP POKER II
STA298 STUDIO 24 (STEINBERG)
STB948 SUPER HEROS COMBO PAK
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STD135 TIME BANDIT
STD822 TRIMBASE
STB741 TURBO JET DRIVER
STD838 TURBO KIT
STD868 TURBO ST (SPEEDUP)
STA023 TURTLES 2 - TEEN AGE(DS)
STA147 TURTLES WORLD T(COLOR BK
STD281 ULTIMA III: EXODUS
STA195 ULTIMATE VIRUS KILLER 6.
STD247 ULTRASCRIP ST SLM804
STA222 UTOPIA
STB883 UTOPIA TWIN PAK
STD733 V.I.P. PROFESSIONAL V1.2
STD573 VEGAS CRAPS
STA027 VIDEO KID
STA286 VIDEO WIZARD
STB910 WERCS/KNIFE/SAVED/ETC...
STA125 WHICH WHERE WHAT AGE 4-8
STB381 WILLIAM TELL CROSSBOW
STB737 WINNING TEAM (COMBO)
STB746 WONDERLAND
STD476 WORD UP 3.0
STB274 WORDFLAIR REQ 2EA DS DR
STA216 WRATH OF THE DEMON
STB585 YEAGERS ADV FLIGHT TRNR
STD294 ZAK MCCRACKEN
STA277 ZOOMRACKS DATABASE
STD151 ZORK I
STD405 ZORK II
STD404 ZORK III



Lorant takes another look at the 'RTFM' principle. He also provides some useful, friendly definitions!

(what a nice guy!)

I am about 35 years old. I have two University diplomas. One is from the Academy of Music in the Capitol of Hungary (look it up), the other from the University for the Fine Arts in Stuttgart, Germany (Capitol of which state?). I spent five years in each program. I actually feel five years younger than my biological age, since all my Hungarian friends, who started at the same time as I, had already established themselves professionally by the time I got out of school. Whenever I see something dating from the 80's I have to calculate where I was at the time. The second thought is: "God, did it really happen 15 years ago...?"

I clearly remember the first time I used MIDI. It was in 1986, I was conducting an orchestra and I had to prepare Mendelssohn's Hebrides Overture. The problem was, that I forgot the schedule for the project, and I was reminded only on the day before the first rehearsal, which meant I had to learn the score overnight. I managed to borrow a brand new keyboard and I set out to record the whole score, part by part on my trusty 2-track reel-to-reel tape recorder. Eventually, the concert was a success. Besides having learned the score really well, I also got hooked on the concept of MIDI.

The initial interest was in the practical applications of electronic instruments. A few years later I had to sequence the rhythm section tracks for a Jazz Band. The event signaled my first encounter with Atari. Previous computer experiences involved the Commodore 64. But Atari's graphic environment manager, the use of a mouse, and sound sources not limited to three internal voices, opened up a whole new galaxy for me.

As I continued to use MIDI (in Canada by then), I discovered more and more secrets. I found that lot of the common elements in MIDI hardware and software have different, often conflicting names depending on the manufacturer. The term "part" for instance, may mean a single patch (like "piano" or "seashore"), a component or source of a sound, or an element of a multitimbral layer. Confusing! I also found that when shopping for gear, I always forgot to ask a couple of important questions regarding features. I was therefore, most exuberantly

happy when I discovered that there is a part of each manual that uses common terminology and declares with a simple yes or no the presence or absence of all standard features. I am talking about the MIDI Implementation Chart. Very few people read it, fewer understand it, although it can tell even the inexperienced buyer (better than any salesman's talk) whether the device about to be purchased is the right choice.

The interesting thing is, that charts from the beginning of the MIDI era are not any different from the ones for the newest gear! Why? Because MIDI is an extremely solid system. All existing features have always been included, everything follows the same pattern, all MIDI events are transmitted the same way. It is reliable, accurate and flexible. I just love MIDI. Can you tell?

There are several books available that describe the history and birth of MIDI, the factors that resulted in the need for standardization, and the people instrumental in establishing the standards. I would like to concentrate on the technical aspects of MIDI.

The first thing you have to keep in mind is the 'D' in MIDI: Digital. Information between devices is carried in binary format. This information is data about the sounds you play, not the sounds itself. When you press a key on your keyboard the signal sent contains bytes indicating what note number you played (not pitch, note number!), how hard you pressed the key (not how loudly you played), how fast you released the key and depending on the keyboard, several other pieces of



information. This signal does not know what the note sounds like. It may be a piano on one keyboard, but hook up the same cable to a different device (e.g.: a drum machine) and the result may be a cymbal crash, or on a sampler, a looped bass line.

There are only a handful of different kind of data within the MIDI specs. If you understand what they mean, you have a good grasp of the MIDI concept. Here they are:

1. MIDI Channel.

Most MIDI instruments (keyboards, sound modules, drum machines, etc.) are capable of playing many different sounds simultaneously. The Channel information identifies which note belongs to which sound. The process is similar to cable TV: the cable carries all the available signals and a tuner is used to select individual parts of the signal for your TV set, VCR or Pay-TV box.

2. Note Number.

As I mentioned earlier, what we call 'pitch' on acoustic instruments is identified as 'Note Number' for MIDI. Whether you hear a higher or lower pitch, a different layer or instrument in a split keyboard or a particular percussion instrument, depends on the device that 'translates' the Note Number information. The numbers increase by one for each ascending semitone, therefore transposition is as easy as adding a constant to each note number. Although it may initially be strange, one can quickly relearn the intervals in terms of semitones: alto sax transposes down 9 semitones, tenor -14, baritone sax -21, horn -7 etc.

3. Velocity

On a piano the harder you press a key, the louder it sounds. Actually, it is not entirely true, try pressing a key very slowly: no matter how much you lean into the ivories, the result will be no sound. The primary criteria to playing louder on most keyboard instruments is the speed with which you depress the key (be quiet already with the harpsichord. I know velocity doesn't matter there. I said "most" keyboards!). Velocity, the speed that is, normally translates into dynamics. It can affect a number of other components too: the degree of slapping in bass sounds, the rate of attack or delay of a sound, the texture, or anything else the sound naturally tends to do when created faster.



4. Note On

This message only means 'a key has been struck'. It is followed by the previous two describing which key and how hard.

5. Note Off

Similar to Note On events, Note Off messages just say 'a key has been released'. This one is also followed by further info regarding the particular key.

6. Control Change

Most keyboards have pitch bend wheels, modulation, hold volume and expression pedals, effects, panning and so on. Each of these factors have their unique Control Change numbers. Control #10, with a value of 64 means that the panning is dead centre; 64 is in the middle, between 0 and 127. Why these particular values? We'll see in a moment.

7. Aftertouch

Certain changes can be invoked by applying pressure on an already depressed key. Vibrato, brightness, detuning or volume are some of the more common ones. There are two kinds of aftertouch data: one for the entire keyboard, i.e. every pressed note is affected, even if aftertouch is only applied to one note (sometimes called 'Channel Pressure'), and another kind for individual values for each key (sometimes called 'Polyphonic Key Pressure').

8. Program Changes

The different instruments, drum kits, combinations, effect setups, etc. are recalled from the memory by addressing them with a specific Program number. If an instrument has more than 127 different sounds (Just one more minute, I promised, didn't I?), the sounds are often organized into 'Banks': groups of maximum 128 sounds.

9. System Real Time

Commonly known as synchronization. Devices such as sequencers or drum machines have clocks in them. The System Real Time messages give information about start, stop, continue, tempo, and other time-related events.

10. System Common Messages

These messages are used to enhance other MIDI options. The Song Position Pointer identifies a specific position in a song (a chain of recorded MIDI events). The Song Select option is similar to the Program Change feature, except it recalls whole songs from the memory of a device. The Tune Request instructs (mostly analog) synths to retune all



oscillators.

11. System Exclusive

This is the only MIDI message that is not really universal. The main purpose of the System Exclusive Message (SysEx for short), is to (re)set

parameters in a device. Program maps, tuning, drum kit setups, Channel settings; basically the contents of the memory may be sent via SysEx. It contains a manufacturer's ID that is only recognized by devices made by that manufacturer and ignored by all others.

12. Sample Dumps

Samplers that adhere to the Sample Dump Standard are able to communicate with each other or with computers using this message.

I consider the latter four types of MIDI messages to be the 'advanced' kinds, meaning: if you need them, you already know enough about MIDI not to need this article. Let's concentrate therefore on the more common ones, and see how they can be interpreted in the MIDI Implementation Chart.

When you open the manual of almost any contemporary (built in the last couple of years) MIDI device, towards the end you will find technical data, scary looking columns of data, like:

NRPN MSB/LSB

Status Second Third

BnH 63H mmH *Ignored when "Rx.NRPN = Off

You know what? This is techno-babble. It is information alright, but the sort that you don't really need to know until you can read it like you read comics. The page you should be looking for when trying to figure out the features of a new device is the MIDI Implementation Chart. It should have four columns and about 13 rows (don't start counting now...).

The first column contains the name of a MIDI message-type. Note: this is not the description of the features of the thing! You won't find how many notes it can play simultaneously (polyphony), how many keys it has or how many different sounds are available at the same time (multi timbral capability). There should be another page for that somewhere in the manual. The next two columns show whether or not the machine is capable of transmitting (sending) and recognizing (receiving) the messages. 'O' (a circle), represents 'yes', an X 'no'. Finally, the last column



gives remarks regarding the messages. Before we go on to the meaning and use of individual messages, let's spend a bit of time looking at the structure of the messages themselves.

The numbers 128 or 0-127 have popped up several times already. Why this particular number? Remember the 'D' in MIDI? Digital is the word. MIDI breaks down events into a bunch of zeros and ones (at this point I will assume that you are at least vaguely familiar with the concept of the binary system). The majority of the messages consist of eight digits. The first digit determines whether the byte is a status byte (message that describes the kind of message that is being sent: Note On, Aftertouch, Modulation, etc.) or a data byte (message that follows the status byte and gives the actual value for the message). Status bytes start with 1, data bytes start with 0. A message like:

1001 0000 0100 1001 0110 0001

means that a Note On event on Channel 1 (first byte) with Note Number 73 and with velocity 97 is being sent. The sequence of these events is part of the MIDI standard. Generally, the second 4 digits of every status byte is the Channel number. That is why there are 16 MIDI channels. Makes sense, eh?

As you can see, after the first one we have seven more bits left for actual information. These seven bits can have values between 0 and 127 ($1+2+4+8+16+32+64=128$). About the only inconsistency in MIDI implementation is with this value: some display for instance program numbers as 0 to 127, others as 1 to 128. We'll just have to deal with it.

The Description of Individual Messages (finally)

a. Basic channel

Most of the time you will find '1-16' here, meaning the device transmits and/or receives on all 16 channels. This is also the case with older synths that have less than 16-tone multitimbral capability.

b. Mode

Mode describes the way the instrument responds to MIDI messages. There are four modes: Mode 1: Omni On/ Poly, Mode 2: Omni On/Mono, Mode 3: Omni Off/Poly, Mode 4: Omni Off/Mono. In Omni On mode the instrument responds to messages on all channels; in Mono one note at a time is played. The Mode can also be changed via MIDI. Mode 3 is the most commonly used one, the others are used only for certain specific applications.

c. Note Number

You should see '0-127' here, indicating the entire range of notes. Note #60 is usually the middle C. The ability to send or recognize all 128 notes, however does not mean that you have a 128-key keyboard. Also, some patches (particularly imitations of 'real' instruments), may be limited to the range of the original: a Solo Violin sound, for example may not go below G3. This limitation can be lifted by editing the sound on most devices.

d. Velocity

This is an important feature, one that separates the cheap toys from the serious tools. Keyboards should transmit and receive Velocity messages for Note On events, at least. Note Off velocity can also be meaningful for some types of sounds.

e. Aftertouch

Modern devices must have both Channel and Key pressure capabilities. Since this feature is not idiomatic with some sounds, it can often be turned on or off for individual sounds (a piano does not start a vibrato when you press harder).

f. Pitch Bend

Basically the same is true as for Aftertouch. The maximum range of the bend is also given here, in semitones. The actual range - the interval at the extreme position (value 0 or 127) of the pitch wheel (or joystick) can be edited. One thing you might be interested in is whether the actual range is set globally, for all sounds or individually. You might want to have different ranges for a lead synth and a trumpet sound.

g. Control Change

You will find a list of Control Changes that are available with their corresponding number. The most important ones are Control 1: Modulation, Control 7: Volume, Control 10: Pan, Control 64: Sustain (Damper) Pedal. Some manufacturers use their own terminology instead of that used in the MIDI specs. In this case there should be a list somewhere in the manual with the translation. There are also 'General Purpose' Control numbers that each device interprets uniquely. Their meaning should also be listed separately.

h. Program Change

This is about the only serious limitation of MIDI I've ever found. At the time MIDI was established most keyboards had less than 128 sounds. With the advance of synthesizer technology it is not uncommon for a sound module to have hundreds of sounds, not to mention ROM

cards and expansion boards. Still, MIDI can only recognize 128 different programs at a time. There are several commonly used solutions:

- Program Maps. The user assigns a program number to 128 of his favourite sounds. The other sounds can be recalled manually. Cumbersome.

- Banks. The sounds are organized into multiples of 128, with each group having a separate bank number. Accessing sounds requires therefore two MIDI messages: Bank#, Program#. Unfortunately, since this is a kind of add-on to the original MIDI specs, there are a number of different formats for Bank Changes.

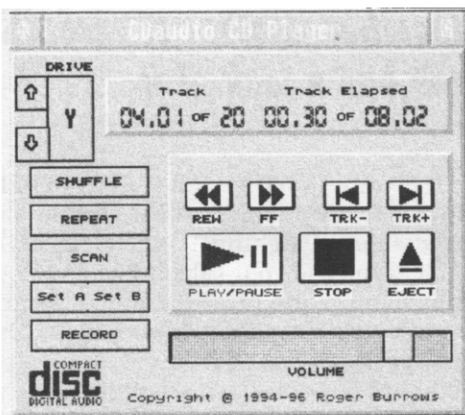
Let's examine General MIDI. GM is a way of organizing the sounds in a pre-arranged order. On GM devices each Program Number refers to the same type of sound: #1:Piano 1, #2: Piano 2, #3: Piano 3...#33: Acoustic Bass...#127: Applause. The quality of the sounds will differ, but a sequence using GM Program Numbers will be able to play on any GM device. On most GM devices there are other sounds as well, either in separate banks or as variations.

Some synths have default values for certain parameters that are set every time you turn on the device. Others power on with the values set before they were turned off the last time. The word 'memorized' in the Remarks column is an indication of the latter.

Buying your first keyboard or sound module can be stressful. You feel left out; the defenseless prey of salesmen. It doesn't have to be like that. Reading the MIDI Implementation Chart gives you enough information to decide whether the machine is the one you want. Equally important however, are the actual sounds! You will have to listen to them for extended periods of time. Listen to the module through an amplification system comparable to your own. If it sounds OK using an expensive amp with effects hooked up to it, and all you have is an old home stereo . . . you might want to reconsider.

And now for the homework: find the manual of a MIDI device and interpret it. You may be surprised. I expect comments like: "So that's why it doesn't work!," and "I didn't know it could also massage my grandmother," or "Honey, do you think you could write me a note for this teacher guy at Current Notes; I don't feel like writing this stupid homework..." ▲

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***This CD stuff is gettin' out of hand!
Kent Kordes and Systems for Tomorrow
have put together another superb disc.
Lianne has a look at it . . .***

Let me first explain a few things about my set up. I have a Falcon030 with a VGA monitor and a single-speed CD-ROM drive. As I was one of the first on my block to have a CD-ROM drive, a single speed was the best-for-the-least. Now, an Atari owner can get just about any speed drive for a very reasonable amount of money.

Anyway, my setup is the main reason why some things on the 'All Things Falcon' CD-ROM will not run on my machine: either some software on the CD wants an RGB Monitor or the single speed CD-ROM is just not loading the information into RAM fast enough for the program to run. Situations like these will find a program bombing out, crashing or returning to the desktop very quickly. Copying software from the CD to a hard drive solves most problems of course, but for testing/review purposes that can become very tedious. Since triple and quadruple speed SCSI CD-ROM drives are now dirt cheap, the solution for slow loading times is really quite simple!

The publishers of the CD promise that the contents (Freeware, Shareware and Demo software), are all "100% Falcon compatible."

So what can be found on this CD? Well the short list includes numerous text editors, word processors and DTP programs, MIDI stuff with demos of sound files (WAV/MOD) and animation players (FLC/FLI) with demos of very entertaining animations. There are Game demos and full-version titles that will pass the time quite nicely. There are Boot programs, and replacement desktops, Falcon fix files and dozens of Utilities to play with.

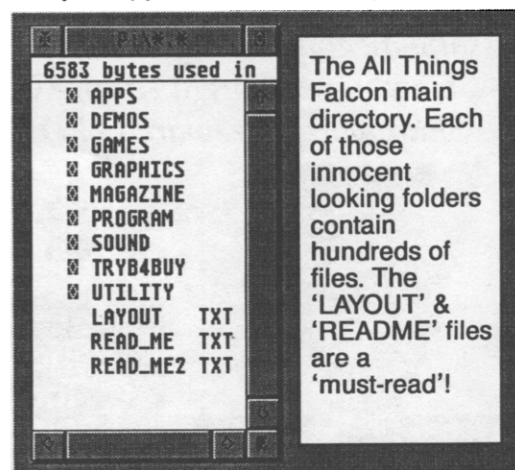
The long list is very long . . . very, very long . . . far too long to list here or anywhere else. If you have a Falcon, and you purchase this CD, you will not need any other software for a very long time! You will in fact have the use of every type and category of software that is available for your Falcon computer, with a healthy selection of programs in each category.

There are many special things that can be done with a Falcon, and bird owners have all heard about some very special Falcon-only software. Since most Falcon-specific applications come with a noticeable price tag, wouldn't it be great if you could have DEMO versions of major applications you're considering buying?

Wouldn't it be nice to have a full version of APEX MEDIA with only the save option disabled? Or how about ART FOR KIDS (absolutely delightful!) or PHOTO SHOW, the program that lets you use your Falcon like a multimedia demonstration and presentation platform? You can load in your pictures, photos from Kodak CDs, and use the video special effects with sound and voice-over to highlight your product, sales pitch, demonstration or lecture. PHOENIX, BILLY and NEON are three new, serious, rendering programs for the Falcon. RAINBOW II MULTIMEDIA and RAINBOW I (the art program) are available to check out, too. And if its pure Art or Image Processing programs you want how about a DEMO of the new French program VISION 1.5 or TRUE PAINT. All of them can be found in demo versions on the 'All Things Falcon' CD-ROM.

You can try games like OBSESSION and PONG. If you are into the MIDI side of things how would you like to get your hands on a demo version of STUDIO COMPOSITION (another fabulous piece of work, check it out even if you're not into MIDI!) or Q-CART and SOUND STUDIO. If that's not enough, try the demo of the voice mail software VOX MAIL; do away with your old, outdated, telephone answering machine and turn your Falcon into the all purpose machine you always knew it was.

'All Things Falcon' CD from SFT Publishing, PO BOX 3034, Independence, MO, 64055, U.S.A., is a must buy for anyone who wants to unleash the potential, not to mention the power of their computers. It's available from all Atari dealers. Buy a copy. You won't be sorry!▲





Dan Dreibelbis looks at the Atari Compendium CD

(beginners and power-users alike, will love
this one!)

Back in September 1993, a rather thick book appeared called THE ATARI COMPENDIUM that set the TOS programming community on its ear. Written by Scott Sanders, it made available for the first time to the average programmer, a comprehensive guide to programming the Atari when such important information was sorely lacking, particularly information about MinT and MultiTOS, the Falcon, and the fairly new SpeedoGDOS font handling program. It was so well received in fact, that the book actually went through a second printing (with some corrections and addendums) in order to keep up with the demand.

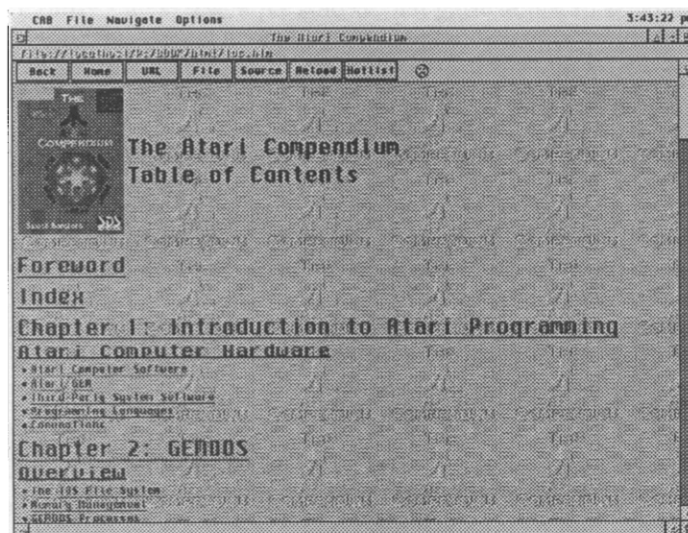
Now, after a short period of unavailability, the COMPENDIUM is back in a completely new form. Thanks to the efforts of Mr. Sanders, Tony Love, and David Troy at Toad Computers, the popular book has been released on CD-ROM in the form of HTML files; the same format used to create the hypertext documents used on the World Wide Web. Also included on the CD-ROM are various copies of the STiK/CAB WWW Browser program for reading the Compendium on any Atari computer with at least 1 MB RAM and a CD-ROM drive.

This format makes perfect sense. It makes the documentation portable to just about every computer platform. All you need to read this CD-ROM is a computer with a CD-ROM drive and a suitable Web Browser program. This is an especially good idea in light of the fact that the popularity of the new Atari emulation programs such as MagicMac, the soon-to-be-released MagicPC, and GEMulator, make it possible for future developers to write new Atari software on a different platform and have all the necessary documentation at their fingertips. Just start up Netscape Navigator, load the Compendium, and away we go!

So just how good is it? Here's what I found

GETTING IT GOING

I tested the CD-ROM on a number of different platforms. On the Atari side I utilized a Falcon030, (4 MB RAM, TOS 4.02, Geneva/Neodesk4, NVDI 3.02, ExtenDOS Pro 2.3a), and two different versions of the CAB/STiK WWW Browser package (1.16, included on the disk, and the current v1.30, which is preferable if you want to actually access the Web, as it's



much more stable). I also ran the Compendium CD on a Macintosh LC575 and a Pentium equipped PC clone, both running the excellent Netscape Navigator 2 web browser.

For the most part, the information from the second edition of the book is all here – and what information! From hardware calls, the AES, the XBIOS, and histories of the machines in question, the information is comprehensive, albeit mostly written in a way that is best understood by someone with at least the rudiments of programming. They've even included the source code discussed in the pages of the book as separate files for loading into your favorite programming language. The Compendium's value as a resource is excellent, no question.

I have some concerns regarding the presentation of some info on the disk:

- 1) The title page. The first thing you see when you load in the HOME.HTM file is a large title page with an enormous graphic, and no obvious way to continue! To get to the main introduction page, you actually have to click on the word 'Compendium' in the graphic. Surely the main graphic and the introduction page could have been combined on a single HTML page to make things less confusing.
- 2) The use of background 'tiles' on the Introduction and Table of Contents pages make it very hard to read the text on top unless one either shuts off the background tiles within the WWW reader or (in the case of CAB) switches into grayscale mode while in a color mode. These tiles really should have been eliminated, as they serve no real purpose except as a pretty

backdrop (to be fair, this tiling does not appear on the pages with programming information).

→ 3) Some of the text and the tables in the information pages are wider than the GEM window in which they appear and require constant fiddling with the window gadgets in order to read all the information. It's a potential problem when reading the pages in ST Medium and High, and in the standard TT and Falcon 640x480 screen modes. This can be adjusted if you're running NVDI or SpeedoGDOS and using TrueType fonts; just choose a smaller text size from within CAB, and the program will reformat the text and tables accordingly. You can also run a larger screen by using a graphics card or graphics software (if you're using the CD on a TT, MegaSTe, or Falcon). I utilize a small freeware Auto Folder program called 'Videl Inside' on my Falcon, which I've configured to run a larger screen of 800x608/256 colors at 53kHz, which gives plenty of room for a larger window with very little flicker.

→ 4) The Index HTML page only displays a hyperlink back to the Table of Contents! I've loaded the page into a text editor and found there's supposed to be a lot more hyperlinks related to specific topics and features that aren't readily apparent in the Table of Contents. This really should have been fixed before the CD was pressed.

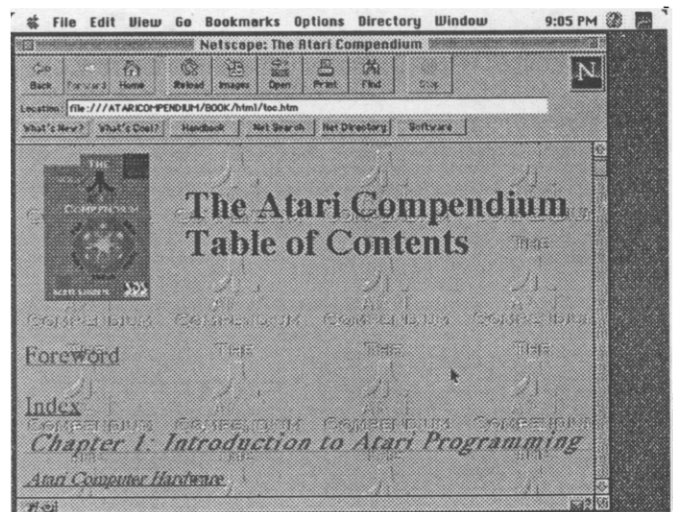
→ 5) There are some example graphics included in some of the pages. Though most are good, there are a few that appear to have been poorly scanned and are somewhat illegible (the AES pages for instance).

→ 6) In order to make the best use of this CD-ROM, it's probably best (though not strictly necessary) to use a multitasking system such as MagiC4, MultiTOS, or Geneva in order to keep CAB in memory with the Compendium loaded while simultaneously running the programming software. Otherwise, a programmer might be constantly shutting off the programming software and then running CAB, then shutting down CAB as soon as the information was found and running the programming software again! One way around this would be running an earlier version of CAB that could also be run as a desk accessory; Toad has thoughtfully included all the earlier incarnations of the WWW Browser package on the CD. Of course, you can always print out the pages from within CAB or Netscape and keep them handy in a three-ring binder, or invest in a cheap 386-based PC with a CD-ROM and Netscape and run the Compendium simultaneously.

OTHER GOODIES

Toad has tried their hardest to make sure that there is extra value in this disk by making sure that it takes advantage of the amount of capacity a CD-ROM holds. It's an effort which should definitely be applauded in light of some of the CDs out there that fail to take advantage of the extended storage. To that end, they've included a number of tasty extras:

- the entire text of the Compendium in PDF format for Postscript output, as well as programs for the Mac and PC for viewing and printing. Toad even included GNU's GhostScript program for viewing the files on your Atari and publishing them on your printer. Toad has also included PDFs of one of their latest catalogues too.
- operating system files for use with MinT, NetBSD, and Linux 68/K.
- a variety of freeware programming languages, including Sozobon C.



- a variety of different compression and unpacking programs, a nice touch, as some of the files on this disk are packed in the not too common TAR and ARJ format (at least not common in the Atari & PC worlds).

- performance and commercial demos for the ST, STe, TT, and Falcon

- the latest demo of MagiCMac for trying out on Mac systems (although it's in a weird binary format, and not in a self-extracting archive as is normally found in a downloadable version)

- an enormous amount of software for TOS/GEM computers from the University of Michigan FTP site

- software for the Atari Portfolio personal information manager.

- video demos of Atari Jaguar games, as well as a demo of TEMPEST 2000 for the PC.

- other Internet software for use with an ISP, including utilities for MinTNet (surprisingly OASIS, the mail reader program which has a large following in the UK, seems to be missing).

SO HOW DOES IT RATE?

I hate to say that I'm actually torn regarding the value of this CD. A lot of work has gone into producing it. The information presented is invaluable to both the novice and the seasoned programmer, and the addition of the various extra files on the disk certainly make it doubly valuable as a first CD for those just getting their feet wet in the wonderful world of CD-ROM. The fact that the information is portable from system to system via the use of web browser software makes it equally valuable to owners of other systems, particularly those running a TOS emulator. The other problems that were found on the other hand, particularly the page and table layout and the faulty index hypertext, make actually finding the information somewhat frustrating.

Hopefully, David Troy at TOAD, Tony Love and Scott Sanders will take these problems to heart and fix them in the next pressing of this CD-ROM. ▲



Picture the scene: you're searching for the entrance to an unexplored pyramid. Having sweated through countless days, hope of finding it is fading faster than a speeding bullet. One night you accidentally stumble across the entrance and decide to explore further in the morning.

Awakened by a mysterious voice commanding you to enter the pyramid, you obey as if hypnotized. Snapping out of the trance you find yourself in an Egyptian labyrinth. The tide has turned a full 180 degrees. Now you must find the entrance, to get out! And the only way out is to conquer what lies ahead.

That was setting for the game and I must ask, do games players really need baloney such as this to get into a game? I haven't played many games since my Spectrum owning days and stories such as these were around even then, on the inside cover of a cassette box.

Into what mysterious game does this mystical Egyptian story lead us? Sokoban, that classic 8-bit game! Many of the

Confusion

Confusion

Confusion

Mr. Bhabuta finds a 'new' game he really likes. We like it too, 'cause it looks so darn good on the Falcon!

latest Falcon game releases have been conversions of old 8-bit favourites. Those games were playable even without the sound and graphics capabilities of current machines. Confusion brings back that playability and adds some good quality graphics and superb sound.

The object of the game is to get through each level by pushing blue crystals around the maze, slotting them into small platforms to activate them. Various objects and walls hinder your progress while some objects can actually help you. Filling all the platforms with the crystals takes you to the next level.

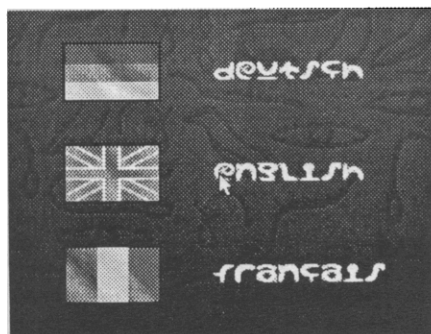
This all seems very easy until you actually play the game. Not only are you racing against the clock but you also have to complete the level in the least number of moves. What you think is an easy route may turn out to be the hardest one. You

don't realize this until you are actually en route, even if you planned it beforehand. This aspect is what makes Confusion so playable.

Make one mistake and you are back to the beginning of the level, and making mistakes in this game is too damn easy! A lot of the moves are similar in some of the levels. This makes you relax a bit while controlling the character and you may push the crystal one slot too far. It's frustrating, but I could not resist 'one more try'.

There are over 100 levels in Confusion each with varying degrees of complexity. Each level has a codeword linked to it, so if you don't finish the game in one go you can go back & carry on at a later time.

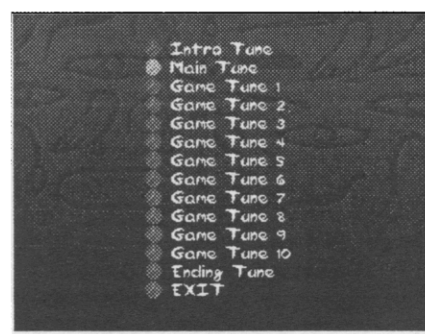
The game comes on three high density disks in well-designed packaging (which



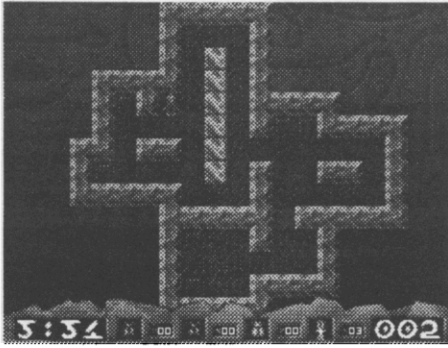
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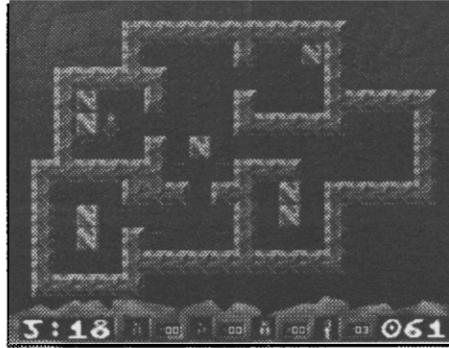
Confusion's artwork is colorful & bright . . .



Choose from a huge selection of music to play during the game . . .



The aim is to move blue square objects into the red slots around the game screen . . .



. . . but make one false move and you're stuck for eternity!

was nice to see compared to other recent releases which come in a video tape box). The 42 page multi-lingual manual is nicely laid out too. Familiar names from the ST and Falcon demo coding teams make an appearance in the manual. The artwork and soundtracker MOD music are what you would normally expect from a platform demo. Nice quality stuff here! A couple of errors did creep in. The

manual goes on about an install program on disk 1. I spent the first few minutes trying to locate this to no avail. Instead I created a directory for the game on my hard disk and plonked the contents of all three floppies in there. Once you start the game French, English or German can be chosen as the language. A password will also be requested (random words from different parts of the manual).

Confusion is a Falcon game & works in VGA or RGB modes. The main character can be controlled via keyboard, joystick or the Jaguar joypad. Graphics are bright, sound is excellent and the game is very playable. I like this simple puzzle game a lot and recommend it. As a matter of fact, now that this review is over I'm going back to Confusion...

Product name: Confusion

Publisher: WBW Game Line

UK Distribution: 16/32 Systems

Price: £24

Requirements: 4Mb Falcon, hard drive

Pros: Heavily addictive and playable game, excellent presentation

Cons: A couple of errors in the manual, but nothing bad

Score: 10

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HEY . . . DIS AIN'T DA LETTERS PAGES!!

Um, WE'RE SORRY! Very sorry actually. There was just too much material ready for publication this month: reviews, regular columns, irregular columns (ToadLine), product releases, news, and that massive text editor thing.

As a consequence, we had to make some sacrifices . . . specifically, the 'letters' pages. It's too bad as well, because we have a whole raft of questions and answers from last month; we had an unusually large number of help requests over the past 7 weeks via both letter mail and e-mail. Current Notes' staff do try to answer as many questions as we can via e-mail, but the volume of requests is sometimes just too high.

We'll try to make some extra space in the July/August issue for the 'letters' section. Please send any and all help, query or support questions and suggestions to: hcarson@io.org or redfrog@io.org or by letter mail to Current Notes, 46 Scotia Ave., Scarborough ON, Canada, M1L 4E6.

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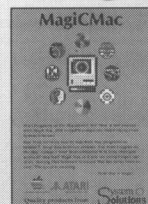
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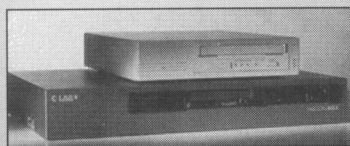
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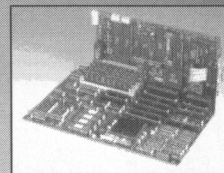
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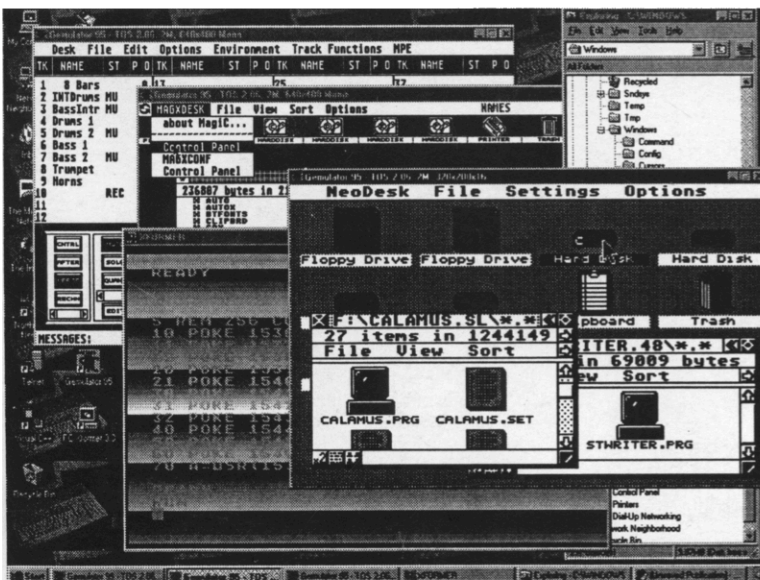
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